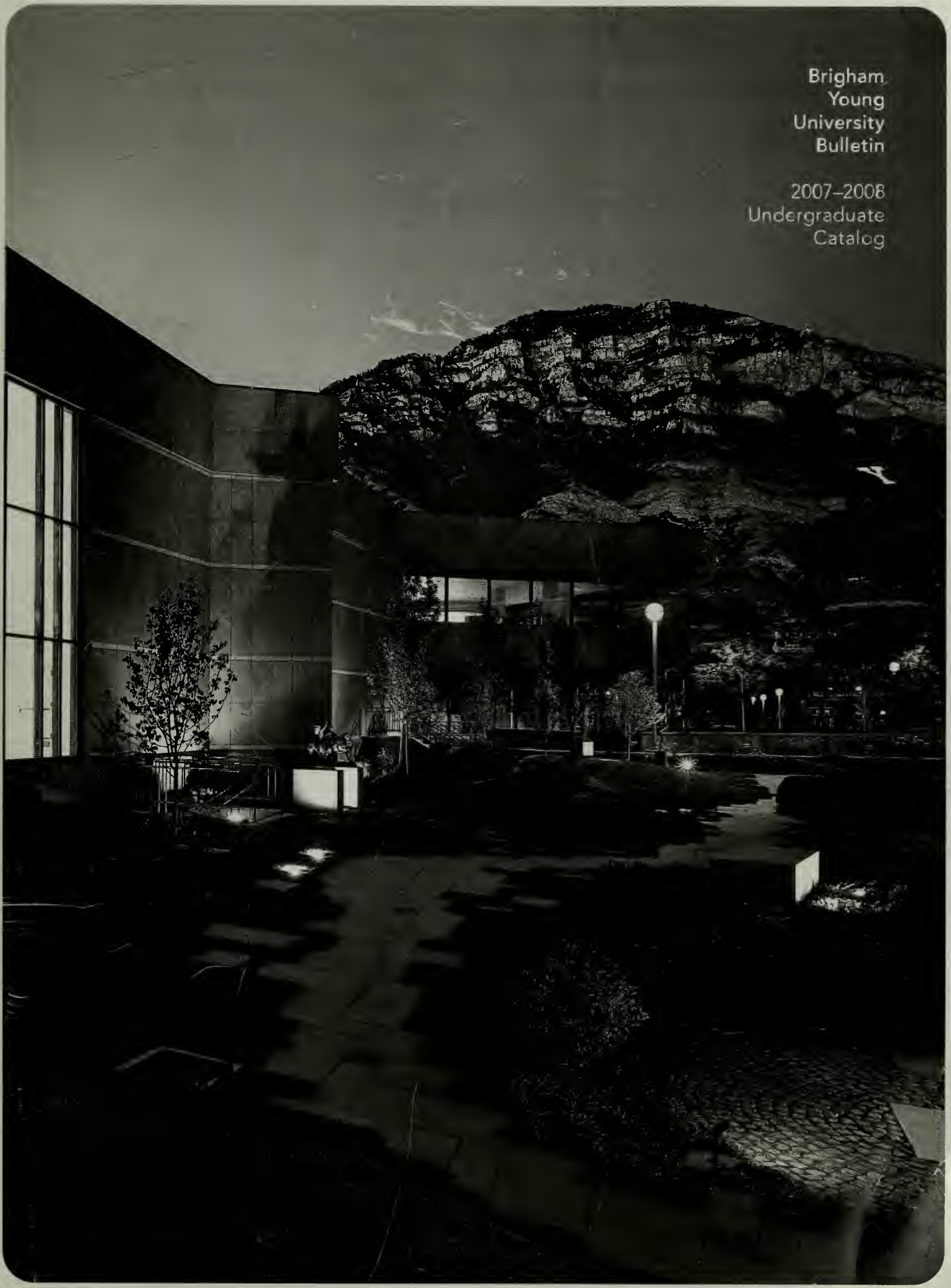

Brigham Young University Bulletin

2007–2008 Undergraduate Catalog

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BRIGHAM YOUNG UNIVERSITY BULLETIN

2007–2008 UNDERGRADUATE CATALOG

USPS No. 065-120

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Using This Catalog

Course Numbering System

A course's level of instruction is shown by the number assigned to it:

Course Number	Type of Course
1 to 99	Preparatory and remedial (noncredit)
100 to 299	Lower-division
300 to 499	Upper-division
500 to 599	Advanced undergraduate or graduate
600 to 799	Graduate

Credit-Hour Designations

One semester hour of credit represents a minimum of one hour of instruction per week in a semester or two hours of instruction per week in a term (e.g., a three-hour class will meet at least three hours per week). The three-number code that appears in parentheses immediately after each course title has the following significance:

First number	Semester hours of credit
Second number	Class hours of lecture, recitation, or seminar meeting per week
Third number	Laboratory hours required per week or hours of field study or individual research per week, beyond the hours shown in the second number

Abbreviations and Symbols

Course Listings

The following abbreviations and symbols are used in the course listings:

A,B	Indicate parts of a course to be taken in separate enrollments
Arr.	Credit, class, or laboratory hours arranged
ea.	Credit-hour designation applies to each registration
M	Majors-only course
R	Designates a course that may be repeated for credit. Two R courses with the same number on a transcript are treated as two independent courses. An R course cannot be repeated to raise the grade received; all grades will be counted because it is assumed that the subject matter varies from time to time.

When Courses Are Offered

The following abbreviations are used following the credit hour designation on some courses to indicate when the course is offered:

F	Fall semester
W	Winter semester
Sp	Spring term
Su	Summer term
Alt. sem.	Alternate semester
Alt. Sp, Su term	Alternate spring, summer term
Alt. yr.	Alternate year
Even yr.	Even year
Odd yr.	Odd year
1st blk.	First block
2d blk.	Second block
On dem.	On demand

Subject Area	Abbreviations
Accountancy, School of	
Accounting	Acc
Aerospace Studies	Aeros
American Heritage	A Htg
American Studies	Am St
Anthropology	Anthr
Biology	Biol
Business Management	Bus M
Managerial Economics	ManEc
Chemical Engineering	Ch En
Chemistry and Biochemistry	Chem
Civil and Environmental Engineering	CE En
Communication Disorders	ComD
Communications	Comms
Computer Science	C S
Counseling Psychology and Special Education	CPSE
Dance	Dance
Economics	Econ
Educational Leadership and Foundations	EdLF
Electrical and Computer Engineering	EC En
Engineering and Technology Education	Eng T
English	Engl
Exercise Sciences	ExSc
Family Life, School of	
Family Life	FamLf
Home and Family Living	HFL
Marriage and Family Therapy	MFT
Marriage, Family, and Human Development	MFHD
Fine Arts	FnArt
Freshman Academy	Univ
Geography	Geog
Geological Sciences	Geol
Health/Physical Education	HEPE
Health Science	Hlth
History	Hist
Honors Program	Honrs
Humanities	Hum
Classics	Clscs
Classical Civilization	Cl Cv
Comparative Literature	CmLit
Information Systems	I Sys
Instructional Psychology and Technology	IP&T
Integrative Biology	InBio
International and Area Studies	IAS
Ancient Near Eastern Studies	ANES
Asian Studies	Asian
European Studies	Europ
International Relations	IR
Latin American Studies	Lt Am
Middle East Studies/Arabic	MESA
Languages	
Afrikaans	Afrik
Arabic	Arab
Bulgarian	Bulgn
Cantonese	Cant
Chinese	Chin
Czech	Czech
Danish	Dansh
Dutch	Dutch
Estonian	Eston
Finnish	Finn

French	Fren
German	Germ
Greek	Greek
Hebrew	Heb
Hungarian	Hung
Icelandic	Iclnd
Italian	Ital
Japanese	Japan
Korean	Korea
Latin	Latin
Latvian	Latvi
Lithuanian	Lithu
Near Eastern Languages	Ne Lg
Norwegian	Norwe
Polish	Polsh
Portuguese	Port
Romanian	Rom
Russian	Russ
Scandinavian	Scand
Serbo-Croatian	SrbCr
Slovenian	Sln
Spanish	Span
Swedish	Swed
Ukrainian	Ukrai
Welsh	Welsh
Language Studies, Center for	FLang
Law School	Law
Linguistics	Ling
American Sign Language	ASL
Computers and the Humanities	CHum
English as a Second Language	ESL
English Language	ELang
Mathematics	Math
Mathematics Education	MthEd
Mechanical Engineering	Me En
Microbiology and Molecular Biology	MMBio
Military Science	Mil S
Music	Music
Neuroscience Center	Neuro
Nursing	Nurs
Nutrition, Dietetics, and Food Science	NDFS
Organizational Leadership and Strategy	Org B
Management Communication	M Com
Philosophy	Phil
Physical Science	Phy S
Physics and Astronomy	Phscs
Physiology and Developmental Biology	PDBio
Plant and Animal Sciences	PAS
Political Science	Pl Sc
Psychology	Psych
Public Management, Romney Institute of	P Mgt
Recreation Management and Youth Leadership	RMYL
Religious Education	
Ancient Scripture	Rel A
Church History and Doctrine	Rel C
Religious Education	Rel E
Social Work, School of	Soc W
Sociology	Soc
Statistics	Stat
Student Development	StDev
Teacher Education	
Early Childhood Education	ECE
Elementary Education	El Ed
Secondary Education	Sc Ed
Technology, School of	Tech
Construction Management	CM
Facilities Management	FM
Industrial Design	InDes
Information Technology	IT
Manufacturing Engineering Technology	Mfg
Technology Teacher Education	TTE
Theatre and Media Arts	TMA
Visual Arts	
Art History and Curatorial Studies	ArtHC
Visual Arts Animation	VAAnm
Visual Arts Core	VA
Visual Arts Design	VADes
Visual Arts Education	VAEdu
Visual Arts Graphic Design	VAGD
Visual Arts Illustration	VAIll
Visual Arts Photography	VAPho
Visual Arts Studio	VAStu
Women's Studies	WS

University Calendar

The annual calendar at BYU includes two semesters and two terms. Fall semester 2007 begins the first Tuesday in September and ends before the Christmas holidays. Winter semester is from early January to late April. Spring and summer terms begin April 29 and June 23, respectively. Registering for spring and summer terms allows students to accelerate their progress in many degree programs.

Fall Semester 2007

M	Jan 1, 2007	Departmental application deadlines for fall semester 2007 entry to graduate study may be as early as January 1, 2007. For specific program and department deadlines and requirements, refer to the department listing in the 2007–2008 BYU Graduate Catalog or check with the department
M	Jan 15	Last day continuing students can apply for Spring/Summer scholarships
Th	Feb 1	Last day new freshmen may apply to be considered for the Gordon B. Hinckley Scholarship for fall semester 2007
Th	Feb 1	Last day new freshmen may submit undergraduate applications for spring term 2007, summer term 2007, or fall semester 2007 admission, academic scholarships, and talent awards
Th	Feb 1	Last day international students (new freshman, transfer, and former) may submit admission applications for spring term 2007
Th	Mar 1	All enrolled continuing undergraduate, graduate, intern, or Study Abroad students' Continuing Student Ecclesiastical Endorsements are due to avoid registration delays for fall semester 2007
Th	Mar 1	Last day transfer and former BYU students (including international students) may submit undergraduate admission applications for spring term 2007, summer term 2007, or fall semester 2007
Th	Mar 1	Last day transfer students may submit undergraduate scholarship applications for fall semester 2007
Th	Mar 1	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2007, summer term 2007, or fall semester 2007
Su	Apr 15	Last day continuing undergraduate students and former students admitted spring term, summer term, or fall semester 2007 may apply for scholarships for fall semester 2007 or winter semester 2008
Su	Aug 19	First day summer term 2007 grades are available
MTW	Aug 27–29	Annual University Conference
T	Aug 28	Tuition due in full. Ability to add additional courses for fall 2007 will be restricted due to non-payment
ThFSa	Aug 30–Sep 1	New Student Orientation
M	Sep 3	Labor Day holiday
M	Sep 3	Last day to officially discontinue enrollment without a withdraw date posted on the transcript
T	Sep 4	Classes begin
Sa	Sep 15	Last day for undergraduates to apply and pay fee for December 2007 graduation
M	Sep 17	Last day to add classes
M	Sep 17	Last day for new and continuing students to submit Student Health Plan enrollment or certification of other coverage through the Route Y Web site
M	Sep 17	Last day to drop classes without incurring a pro-rata tuition charge
M	Sep 17	Last day to drop a class without a W (official withdrawal) appearing on the transcript
T	Sep 18	Final tuition deadline. Current class enrollment will be dropped for non-payment. Late payments will not be accdepted
Th	Sep 20	Last day to withdraw from a first block class for academic reasons
F	Sep 28	Last day graduate students may apply for December 2007 graduation
M	Oct 1	Last day new freshmen, transfer, and former BYU students (including international students) may submit undergraduate admission/scholarship applications for winter semester 2008
M	Oct 1	Last day to submit a continuing student enrollment and scholarship deferment application for winter semester 2008
M	Oct 8	Last day to officially discontinue from first block classes for nonacademic emergencies
M	Oct 8	Last day to withdraw from a semester class for academic reasons
T	Oct 23	Last day of first block classes
W	Oct 24	Second block classes begin
W	Oct 31	Last day to add second block classes
W	Oct 31	Last day to drop a second block class without a W (official withdrawal) appearing on the transcript
F	Nov 2	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for December 2007 graduation
F	Nov 9	Last day to withdraw from a second block class for academic reasons
F	Nov 9	Last day Independent Study course work and midterms may be submitted for December 2007 graduation
Th	Nov 15	Full payment due on BYU short-term loans for fall semester 2007
F	Nov 16	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for December 2007 graduation
T	Nov 20	Friday class instruction—no Tuesday classes
W	Nov 21	No classes held
W	Nov 21	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to December 2007 graduation

ThF	Nov 22–23	Thanksgiving holiday
F	Nov 30	Last day to officially discontinue from the university or withdraw from a class for nonacademic emergencies
F	Nov 30	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for December 2007 graduation
F	Nov 30	Last day Independent Study final exams may be submitted for December 2007 graduation
F	Dec 7	Last day graduate students may submit their dissertation, thesis, or selected project to the Library Business Office; complete remaining degree requirements; pay fees; and submit exam results and any I and T, etc., grade changes to Graduate Studies for December 2007 graduation
Th	Dec 13	Last day of class instruction
FSa	Dec 14–15	Reading days
M–F	Dec 17–21	Final exams
F	Dec 21	Graduation (no exercises)
MT	Dec 24–25	Christmas Holiday
MT	Dec 31–Jan 1, 2008	New Year's Day Holiday
W	Jan 2	Last day instructors may submit fall semester 2007 grades to the Records Office
F	Jan 4	Fall semester 2007 grades available

Winter Semester 2008

Th	Feb 1, 2007	Departmental application deadlines for winter semester 2008 entry to graduate study may be as early as February 1, 2007. For specific program and department deadlines and requirements, refer to the department listing in the 2007–2008 BYU Graduate Catalog or check with the department.
Su	Apr 15	Last day continuing undergraduate students may apply for scholarships for winter semester 2008
M	Oct 1	Last day new freshmen, transfer, and former BYU students (including international students) may submit undergraduate admission/scholarship applications for winter semester 2008
M	Oct 1	Last day to submit a continuing student enrollment and scholarship deferment application for winter semester 2008
Th	Nov 15	Last day for undergraduates to apply and pay fee for April 2008 graduation
W	Jan 2, 2008	Tuition due in full. Ability to add additional courses for winter 2008 will be restricted due to non-payment
F	Jan 4	New Student Orientation
Su	Jan 6	Last day to officially discontinue enrollment without a withdraw date posted on the transcript
M	Jan 7	Classes begin
T	Jan 15	Last day continuing students can apply for Spring/Summer scholarships
M	Jan 21	Martin Luther King Day holiday
F	Jan 18	Last day to add classes
F	Jan 18	Last day for new students to submit Student Health Plan enrollment or certification of other coverage through the Route Y Web site
F	Jan 18	Last day to drop classes without incurring a pro-rata tuition charge
F	Jan 18	Last day to drop a class without a W (official withdrawal) appearing on the transcript
T	Jan 22	Final tuition deadline. Current class enrollment will be dropped for non-payment. Late payments will not be accepted.
Th	Jan 24	Last day to withdraw from a first block class for academic reasons
F	Jan 25	Last day graduate students may apply for April 2008 graduation
F	Feb 1	Last day new freshmen may submit undergraduate applications for spring term 2008, summer term 2008, or fall semester 2008 admission, academic scholarships, and talent awards
F	Feb 1	Last day international students (new freshman, transfer, and former) may submit admission/scholarship applications for spring term 2008
F	Feb 1	Last day new freshmen (including international students) may apply to be considered for the Gordon B. Hinckley Scholarship for fall semester 2008
M	Feb 11	Last day to officially discontinue from a first block class for nonacademic emergencies
M	Feb 11	Last day to withdraw from a semester class for academic reasons
M	Feb 18	Presidents' Day holiday
T	Feb 19	Monday class instruction—no Tuesday classes
F	Feb 22	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for April 2008 graduation
W	Feb 27	Last day of first block classes
Th	Feb 28	Second block classes begin
Sa	Mar 1	Last day transfer and former BYU students—including international students (except for spring term—see Feb 15)—may submit undergraduate admission/scholarship applications for spring term 2008, summer term 2008, or fall semester 2008
Sa	Mar 1	All enrolled continuing undergraduate, graduate, intern, or Study Abroad students' Continuing Student Ecclesiastical Endorsements are due to avoid registration delays for fall semester 2008
Sa	Mar 1	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2008, summer term 2008, or fall semester 2008
Sa	Mar 1	Last day transfer students may submit undergraduate scholarship applications for fall semester 2008
Th	Mar 6	Last day to add second block classes
Th	Mar 6	Last day to drop a second block class without a W (official withdrawal) appearing on the transcript
F	Mar 7	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for April 2008 graduation
F	Mar 14	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for April 2008 graduation

F	Mar 14	Last day Independent Study course work and midterms may be submitted for April 2008 graduation
Sa	Mar 15	Due date for Continuing Student Ecclesiastical Endorsement for academic year Fall 2008–Summer 2009
M	Mar 17	Full payment due on BYU short-term loans for winter semester 2008
M	Mar 17	Last day to withdraw from a second block class for academic reasons
F	Mar 21	Last day graduate students may submit their dissertation, thesis, or selected project to the Library Business Office; complete remaining degree requirements; pay fees; and submit exam results and any I and T, etc., grade changes to Graduate Studies for April 2008 graduation
F	Mar 28	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to April 2008 graduation
W	Apr 2	Last day to officially discontinue from the university or withdraw from a class for nonacademic emergencies
F	Apr 4	Last day Independent Study final exams may be submitted for April 2008 graduation
T	Apr 15	Last day continuing undergraduate students and former students admitted spring term, summer term, or fall semester 2008 may apply for scholarships for fall semester 2008 and winter semester 2008
T	Apr 15	Last day of class instruction
WTh	Apr 16–17	Reading days
F, Sa,M–W	Apr 18–19, 21–23	Final exams
Th	Apr 24	Graduation—university commencement
F	Apr 25	Graduation—college convocations
W	Apr 30	Last day instructors may submit winter semester 2008 grades to the Records Office
F	May 2	Winter semester 2008 grades available

Spring Term 2008

M	Sept 17, 2007	Departmental application deadlines for spring term 2008 entry to graduate study may be as early as September 17, 2007. For specific program and department deadlines and requirements, refer to the department listing in the 2007–2008 BYU Graduate Catalog or check with the department.
T	Jan 15, 2008	Last day continuing undergraduate students may submit scholarship applications for spring or summer terms 2008
F	Feb 1	Last day new freshmen may submit undergraduate applications for spring term 2008, summer term 2008, or fall semester 2008 admission, academic scholarships, and talent awards
F	Feb 1	Last day international students (new freshman, transfer, and former) may submit admission applications for spring term 2008
Sa	Mar 1	Last day transfer and former BYU students—including international students (except for spring term—see Feb 15)—may submit undergraduate admission applications for spring term 2008, summer term 2008, or fall semester 2008
Sa	Mar 1	All enrolled continuing undergraduate, graduate, intern, or Study Abroad students' Continuing Student Ecclesiastical Endorsements are due to avoid registration delays for fall semester 2008
Sa	Mar 1	Last day to submit a continuing student enrollment and scholarship deferment application for spring term 2008, summer term 2008, or fall semester 2008
Sa	Mar 1	Last day transfer students may submit scholarship applications for spring term, summer term, or fall semester 2008
Sa	Mar 1	Last day former students admitted spring term or summer term 2008 may apply for spring term and summer term 2008 scholarships
T	Apr 15	Last day for undergraduates to apply and pay fee for August 2008 graduation
T	Apr 15	Last day former students may apply for fall semester 2008 or winter semester 2008 scholarships
T	Apr 22	Tuition due in full. Ability to add additional courses for spring 2008 will be restricted due to non-payment
M	Apr 28	Last day to discontinue enrollment without a withdraw date posted on the transcript
T	Apr 29	Classes begin
W	Apr 30	New Student Orientation
T	May 6	Last day to add classes
T	May 6	Last day for new students to submit Student Health Plan enrollment or certification of other coverage through the Route Y Web site
T	May 6	Last day to drop classes without incurring a pro-rata tuition charge
T	May 6	Last day to drop a class without a W (official withdrawal) appearing on the transcript
W	May 7	Final tuition deadline. Current class enrollment will be dropped for non-payment. Late payments will not be accepted
Th	May 15	Last day to withdraw from a class for academic reasons
F	May 23	Last day graduate students may apply for August 2008 graduation
M	May 26	Memorial Day holiday
M	Jun 2	Full payment due on BYU short-term loans for spring term 2008
T	Jun 3	Last day to officially discontinue from the university or withdraw from a class for nonacademic emergencies
M	Jun 16	Last day of class instruction
T	Jun 17	Reading day
WTh	Jun 18–19	Final exams
F	Jun 20	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for August 2008 graduation
F	Jun 27	Last day instructors may submit spring term 2008 grades to the Records Office
M	Jun 30	Spring term 2008 grades available
M	Jun 30	Last day federal government will accept Free Application for Federal Student Aid (FAFSA) for 2007–2008 academic year

Summer Term 2008

M	Dec 17, 2007	Departmental application deadlines for summer term 2008 entry to graduate study may be as early as December 17, 2007. For specific program and department deadlines and requirements, refer to the department listing in the 2007–2008 BYU Graduate Catalog or check with the department.
T	Jan 15, 2008	Last day continuing undergraduate students may submit scholarship applications for summer term 2008
F	Feb 1	Last day new freshmen may submit undergraduate applications for summer term 2008 or fall semester 2008 admission, and academic scholarships.
Sa	Mar 1	Last day transfer and former BYU students—including international students—may submit undergraduate admission applications for summer term 2008 or fall semester 2008
Sa	Mar 1	All enrolled continuing undergraduate, graduate, intern, or Study Abroad students' Continuing Student Ecclesiastical Endorsements are due to avoid registration delays for fall semester 2008
Sa	Mar 1	Last day to submit a continuing student enrollment and scholarship deferment application for summer term 2008 or fall semester 2008
Sa	Mar 1	Last day transfer students may submit scholarship applications for summer term and fall semester 2008
Sa	Mar 1	Last day former students admitted for summer term 2008 may apply for summer term 2008 scholarships
T	Apr 15	Last day for undergraduates to apply and pay fee for August 2008 graduation
T	Apr 15	Last day former students may apply for fall semester 2008 or winter semester 2008 scholarships
F	May 23	Last day graduate students may apply for August 2008 graduation
M	Jun 16	Tuition due in full. Ability to add additional courses for summer 2008 will be restricted due to non-payment
F	Jun 20	Last day graduate students in dissertation, thesis, or selected project programs may schedule a final oral examination (defense of their work) and submit one copy of their work to their department for August 2008 graduation
FSa	Jun 20–21	New Student Orientation
M	Jun 23	Classes begin
Su	Jun 22	Last day to discontinue enrollment without a withdraw date posted on the transcript
M	Jun 30	Last day to add classes
M	Jun 30	Last day for new students to submit Student Health Plan enrollment or certification of other coverage through the Route Y Web site
M	Jun 30	Last day to drop classes without incurring a pro-rata tuition charge
M	Jun 30	Last day to drop a class without a W (official withdrawal) appearing on the transcript
M	Jun 30	Last day federal government will accept Free Application for Federal Student Aid (FAFSA) for 2008–2008 academic year
T	Jul 1	Final tuition deadline. Current class enrollment will be dropped for non-payment. Late payments will not be accepted
Th	Jul 3	Last day graduate students in dissertation, thesis, or selected project programs may have a final oral examination (defense of their work) for August 2008 graduation
F	Jul 4	Independence Day holiday
F	Jul 4	Last day Independent Study course work and midterms may be submitted for August 2008 graduation
Th	Jul 10	Last day to withdraw from a class for academic reasons
F	Jul 11	Last day graduate students may submit their dissertation, thesis, or selected project to the dean of their college for August 2008 graduation
F	Jul 18	Last day undergraduates may submit to the Records Office all incompletes, T grades, special exams, GE challenges, military credit, official transcripts of work completed at other schools, and any other information pertaining to August 2008 graduation
F	Jul 18	Last day graduate students may submit their dissertation, thesis, or selected project to the Library Business Office; complete remaining degree requirements; pay fees; and submit exam results and any I and T, etc., grade changes to Graduate Studies for August 2008 graduation
Th	Jul 24	Pioneer Day holiday
F	Jul 25	Last day Independent Study final exams may be submitted for August 2008 graduation
T	Jul 29	Last day to officially discontinue from the university or withdraw from a class for nonacademic emergencies
F	Aug 1	Full payment due on BYU short-term loans for summer term 2008
M	Aug 11	Last day of class instruction
T	Aug 12	Reading day
WTh	Aug 13–14	Final exams
Th	Aug 14	Graduation—university commencement
F	Aug 15	Graduation—college convocations
F	Aug 22	Last day instructors may submit summer term 2008 grades to the Records Office
M	Aug 25	Summer term 2008 grades available

The Mission of Brigham Young University

The mission of Brigham Young University—founded, supported, and guided by The Church of Jesus Christ of Latter-day Saints—is to assist individuals in their quest for perfection and eternal life. That assistance should provide a period of intensive learning in a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued.

All instruction, programs, and services at BYU, including a wide variety of extracurricular experiences, should make their own contribution toward the balanced development of the total person. Such a broadly prepared individual will not only be capable of meeting personal challenge and change but will also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind.

To succeed in this mission the university must provide an environment enlightened by living prophets and sustained by those moral virtues which characterize the life and teachings of the Son of God. In that environment these four major educational goals should prevail:

- All students at BYU should be taught the truths of the gospel of Jesus Christ. Any education is inadequate which does not emphasize that His is the only name given under heaven whereby mankind can be saved. Certainly all relationships within the BYU community should reflect devout love of God and a loving, genuine concern for the welfare of our neighbor.
- Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education. The arts, letters, and sciences provide the core of such an education, which will help students think clearly, communicate effectively, understand important ideas in their own cultural tradition as well as that of others, and establish clear standards of intellectual integrity.
- In addition to a strong general education, students should also receive instruction in the special fields of their choice. The university cannot provide programs in all possible areas of professional or vocational work, but in those it does provide the preparation must be excellent. Students who graduate from BYU should be capable of competing with the best in their fields.
- Scholarly research and creative endeavor among both faculty and students, including those in selected graduate programs of real consequence, are essential and will be encouraged.

In meeting these objectives BYU's faculty, staff, students, and administrators should also be anxious to make their service and scholarship available to The Church of Jesus Christ of Latter-day Saints in furthering its work worldwide. In an era of limited enrollments, BYU can continue to expand its influence both by encouraging programs that are central to the Church's purposes and by making its resources available to the Church when called upon to do so.

We believe the earnest pursuit of this institutional mission can have a strong effect on the course of higher education and will greatly enlarge Brigham Young University's influence in a world we wish to improve.

—Approved by the BYU Board of Trustees
November 4, 1981

The Aims of a BYU Education

Education is the power to think clearly, the power to act well in the world's work, and the power to appreciate life.
— Brigham Young[1]

The mission of Brigham Young University is "to assist individuals in their quest for perfection and eternal life" ("The Mission Statement of Brigham Young University" [hereafter Mission Statement]). To this end, BYU seeks to develop students of faith, intellect, and character who have the skills and the desire to continue learning and to serve others throughout their lives. These are the common aims of all education at BYU. Both those who teach in the classroom and those who direct activities outside the classroom are responsible for contributing to this complete educational vision.

The statement that follows reaffirms and expands on the earlier and more general Mission Statement adopted in 1981. As the quotations under each heading suggest, this document also draws on the religious and educational teachings of the university's founding prophet, Brigham Young. Quotations within the text come from the scriptures and from the counsel of modern prophets, whose teachings about BYU lay the foundation of the university's mission.

The following four sections discuss the expected outcomes of the BYU experience. A BYU education should be (1) spiritually strengthening, (2) intellectually enlarging, and (3) character building, leading to (4) lifelong learning and service. Because BYU is a large university with a complex curriculum, the intellectual aims are presented here in somewhat greater detail than the other aims. Yet they are deliberately placed within a larger context. The sequence flows from a conscious intent to envelop BYU's intellectual aims within a more complete, even eternal, perspective that begins with spiritual knowledge and ends with knowledge applied to the practical tasks of living and serving.

Spiritually Strengthening

Brother Maeser, I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the Spirit of God.
— Brigham Young[2]

The founding charge of BYU is to teach every subject with the Spirit, It is not intended "that all of the faculty should be categorically teaching religion constantly in their classes, but . . . that every . . . teacher in this institution would keep his subject matter bathed in the light and color of the restored gospel."[3]

This ideal arises from the common purpose of all education at BYU—to build testimonies of the restored gospel of Jesus Christ. A shared desire to "seek learning, even by study and also by faith" (D&C 88:118) knits BYU into a unique educational community. The students, faculty, and staff in this community possess a remarkable diversity of gifts, but they all think of themselves as brothers and sisters seeking together to master the academic disciplines while remaining mastered by the higher claims of discipleship to the Savior.

A spiritually strengthening education warms and enlightens students by the bright fire of their teachers' faith while enlarging their minds with knowledge. It also makes students responsible for developing their own testimonies by strenuous effort. Joseph Smith's words apply equally to faculty and students at BYU: "Thy mind, O man! if thou wilt lead a soul unto salvation, must stretch as high as the utmost heavens, and search into and contemplate the darkest abyss, and the broad expanse of eternity—thou must commune with God."[4] Students need not ignore difficult and important questions. Rather, they should frame their questions in prayerful, faithful ways, leading them to answers that equip them to give "a reason of the hope that is in" them (1 Peter 3:15) and to articulate honestly and thoughtfully their commitments to Christ and to his Church.

Intellectually Enlarging

Every accomplishment, every polished grace, every useful attainment in mathematics, music, and in all science and art belong to the Saints, and they should avail themselves as expeditiously as possible of the wealth of knowledge the sciences offer to every diligent and persevering scholar.
—Brigham Young[5]

The intellectual range of a BYU education is the result of an ambitious commitment to pursue truth. Members of the BYU community rigorously study academic subjects in the light of divine truth. An eternal perspective shapes not only *how* students are taught but *what* they are taught. In preparing for the bachelor's degree, students should enlarge their intellects by developing skills, breadth, and depth: (1) skills in the basic tools of learning, (2) an understanding of the broad areas of human knowledge, and (3) real competence in at least one area of concentration. Further graduate studies build on this foundation.

Undergraduate

1. Skills. BYU undergraduates should acquire the basic tools needed to learn. The essential academic learning skills are the abilities to think soundly, to communicate effectively, and to reason proficiently in quantitative terms. To these ends, a BYU bachelor's degree should lead to:

- *Sound thinking*—reasoning abilities that prepare students to understand and solve a wide variety of problems, both theoretical and practical. Such skills include the ability to keep a proper perspective when comparing the things that matter most with things of lesser import. They also include the ability to engage successfully in logical reasoning, critical analysis, moral discrimination, creative imagination, and independent thought.
- *Effective communication*—language abilities that enable students to listen, speak, read, and write well; to communicate effectively with a wide range of audiences in one's area of expertise as well as on general subjects. For many students this includes communicating in a second language.
- *Quantitative reasoning*—numerical abilities that equip students with the capacity to understand and explain the world in quantitative terms; to interpret numerical data; and to evaluate arguments that rely on quantitative information and approaches.

2. Breadth. BYU undergraduates should also understand the most important developments in human thought as represented by the broad domains of knowledge. The gospel provides the chief source of such breadth because it encompasses the most comprehensive explanation of life and the cosmos, supplying the perspective from which all other knowledge is best understood and measured. The Lord has asked his children to "become acquainted with all good books, and with languages, tongues, and people" (D&C 90:15); to understand "things both in heaven and in the earth, and under the earth; things which have been, things which are, things which must shortly come to pass; things which are at home, things which are abroad; the wars and the perplexities of the nations . . . ; and a knowledge also of countries and of kingdoms" (D&C 88:79).

"Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education [that will help them] understand important ideas in their own cultural tradition as well as that of others" (Mission Statement). Specifically, BYU undergraduate students should be educated in the following broad areas of human knowledge:

- *Religion*—the doctrines, the covenants, the ordinances, the standard works, and the history of the restored gospel, as well as an awareness of other religious traditions.
- *Historical perspective*—the development of human civilization, appreciation for the unique contributions of America to modern civilization, and a general historical perspective, including perspective on one's own discipline.
- *Science*—The basic concepts of the physical, biological, and social sciences, and a recognition of the power and limitations of the scientific method—preferably through laboratory or field experience.
- *Arts and letters*—lively appreciation of the artistic, literary, and intellectual achievements of human cultures—including Western culture and, ideally, non-Western as well.
- *Global awareness*—informed awareness of the peoples, cultures, languages, and nations of the world.

3. Depth. BYU undergraduates should develop competence in at least one area of concentration. Competence generally demands study in depth. Such in-depth study helps prepare students for their life's work; it also teaches them that genuine understanding of any subject requires exploring it fully. Students normally acquire such depth from their major and minor fields. BYU's religion requirement also asks all students to develop depth in scriptural studies and religion.

Depth does not result merely from taking many courses in a field. Indeed, excessive course coverage requirements may discourage rather than enhance depth. Depth comes when students realize "the effect of rigorous, coherent, and progressively more sophisticated study." Depth helps students distinguish between what is fundamental and what is only peripheral; it requires focus, provides intense concentration, and encourages a "lean and taut" degree that has a "meaningful core" and a purposefully designed structure (Memorandum to the Faculty No. 13). In addition to describing carefully structured academic majors, this description applies to well-designed BYU courses of all kinds.

The chief result of depth is competence. BYU's students should be "capable of competing with the best students in their field" (Mission Statement). Even so, undergraduate study should be targeted at entrance-level, not expert-level, abilities. The desire for depth should not lead to bachelor's degrees that try to teach students everything they will need to know after graduation. Students should be able to complete their degrees within about four years.

Undergraduate programs should prepare students to enter the world of work or to pursue further study. Often this requires educational activities that help upperclassmen culminate their studies by integrating them in a capstone project, honors thesis, senior seminar, or internship. By the time they graduate, students should grasp their discipline's essential knowledge and skills (such as mathematical reasoning, statistical analysis, computer literacy, foreign language fluency, laboratory techniques, library research, and teaching methods), and many should have participated in scholarly or creative activities that let them demonstrate their mastery.

Graduate

Building on the foundation of a strong bachelor's degree, graduate education at BYU asks for even greater competency. Graduate studies may be either academic or professional and at either the master's or doctoral level. In all cases, BYU graduate programs, like undergraduate programs, should be spiritually strengthening as well as intellectually enlarging.

Graduate programs should help students achieve excellence in the discipline by engaging its primary sources; mastering its literature, techniques, and methodologies; and undertaking advanced systematic study—all at a depth that clearly exceeds the undergraduate level. In addition, graduate programs should prepare students to contribute to their disciplines through their own original insights, designs, applications, expressions, and discoveries. Graduate study should thereby enable a variety of contributions—such as teaching complex knowledge and skills, conducting original research, producing creative work that applies advanced learning in the everyday world, and extending professional service to the discipline and to society.

These intellectual aims of a BYU education are intended to give students understanding, perspective, motivation, and interpersonal abilities—not just information and academic skills. BYU should furnish students with the practical advantage of an education that integrates academic skills with abstract theories, real-world applications, and gospel perspectives. Such an education prepares students who can make a difference in the world, who can draw on their academic preparation to participate more effectively in the arenas of daily life. They are parents, Church leaders, citizens, and compassionate human beings who are able to improve the moral, social, and ecological environment in which they and their families live. They are scientists and engineers who can work effectively in teams and whose work reflects intellectual and moral integrity; historians who write well and whose profound understanding of human nature and of divine influences informs their interpretation of human events; teachers whose love for their students as children of God is enriched by global awareness and foreign language skill; artists whose performances seek to be flawless in both technique and inspiration; business leaders whose economic judgments and management styles see financial reward not as an end but as a means to higher ends. BYU graduates thus draw on an educated intellect to enhance not only what they *know* but also what they *do* and, ultimately, what they *are*.

Character Building

A firm, unchangeable course of righteousness through life is what secures to a person true intelligence. —Brigham Young[6]

Because it seeks to educate students who are renowned for what they are as well as for what they know, Brigham Young University has always cared as much about strong moral character as about great mental capability. Consequently, a BYU education should reinforce such moral virtues as integrity, reverence, modesty, self-control, courage, compassion, and industry. Beyond this, BYU aims not merely to teach students a code of ethics but to help them become partakers of the divine nature. It aspires to develop in its students character traits that flow from the long-term application of gospel teachings to their lives. This process begins with understanding humankind's eternal nature and ends with the blessing of eternal life, when human character reflects in fully flowered form the attributes of godliness. Along the way, the fruits of a well-disciplined life are augmented and fulfilled by the fruits of the spirit of Jesus Christ—such as charity, a Christlike love for others, which God "hath bestowed upon all who are true followers of his Son, Jesus Christ" (Moroni 7:48). Students thus perfect their quest for character development by coming unto Christ through faith, repentance, and righteous living. Then their character begins to resemble his, not just because they think it should but because that is the way they are.

President David O. McKay taught that character is the highest aim of education: above knowledge is wisdom, and above wisdom is character. "True education," he explained, "seeks to make men and women not only good mathematicians, proficient linguists, profound scientists, or brilliant literary lights, but also honest men with virtue, temperance, and brotherly love."[7] Consequently, a BYU education should bring together the intellectual integrity of fine academic discipline with the spiritual integrity of personal righteousness. The result is competence that

reflects the highest professional and academic standards—strengthened and ennobled by Christlike attributes.

Thus understood, the development of character is so important that BYU "has no justification for its existence unless it builds character, creates and develops faith, and makes men and women of strength and courage, fortitude, and service—men and women who will become stalwarts in the Kingdom and bear witness of the . . . divinity of the gospel of Jesus Christ. It is not justified on an academic basis only."[8] Rather, it fulfills its promise when "the morality of the graduates of this University provide[s] the music of hope for the inhabitants of this planet."[9]

Every part of the BYU experience should therefore strengthen character—academic integrity in taking a test or writing a research paper; sportsmanship on the playing field; the honest reporting of research findings in a laboratory; careful use of university funds derived from the tithes of Church members; treating all other people with dignity and fairness; and wholehearted acceptance of commitments made to bishops and parents. Character is constructed by small decisions. At this personal level of detail, BYU will realize its hope of teaching "those moral virtues which characterize the life and teachings of the Son of God" (Mission Statement).

Lifelong Learning and Service

We might ask, when shall we cease to learn? I will give you my opinion about it; never, never. . . . We shall never cease to learn, unless we apostatize from the religion of Jesus Christ. —Brigham Young[10]

Our education should be such as to improve our minds and fit us for increased usefulness; to make us of greater service to the human family. —Brigham Young[11]

Well-developed faith, intellect, and character prepare students for a lifetime of learning and service. By "entering to learn" and continuing to learn as they "go forth to serve," BYU students strengthen not only themselves—they "also bring strength to others in the tasks of home and family life, social relationships, civic duty, and service to mankind" (Mission Statement).

1. Continual Learning. BYU should inspire students to keep alive their curiosity and prepare them to continue learning throughout their lives. BYU should produce careful readers, prayerful thinkers, and active participants in solving family, professional, religious, and social problems. They will then be like Abraham of old, who had been "a follower of righteousness, desiring also to be one who possessed great knowledge, and to be a greater follower of righteousness, and to possess a greater knowledge, . . . desiring to receive instructions, and to keep the commandments of God." In this lifelong quest, they, like Abraham, will find "greater happiness and peace and rest" (Abraham 1:2). Thus a BYU diploma is a beginning, not an end, pointing the way to a habit of constant learning. In an era of rapid changes in technology and information, the knowledge and skills learned this year may require renewal the next. Therefore, a BYU degree should educate students in how to learn, teach them that there is much still to learn, and implant in them a love of learning "by study and also by faith" (D&C 88:118).

2. Service. Since a decreasing fraction of the Church membership can be admitted to study at BYU, it is ever more important that those who are admitted use their talents to build the kingdom of God on the earth. Hence, BYU should nurture in its students the desire to use their knowledge and skills not only to enrich their own lives but also to bless their families, their communities, the Church, and the larger society. Students should learn, then demonstrate, that their ultimate allegiance is to higher values, principles, and human commitments rather than to mere self-interest. By doing this, BYU graduates can counter the destructive and often materialistic self-centeredness and worldliness that afflict modern society. A service ethic should permeate every part of BYU's activities—from the admissions process through the curriculum and extracurricular experiences to the moment of graduation. This ethic should also permeate each student's heart, leading him or her to the ultimate wellspring of charity—the love for others that Christ bestows on his followers.

Conclusion

Education is a good thing, and blessed is the man who has it, and can use it for the dissemination of the Gospel without being puffed up with pride. —Brigham Young[12]

These are the aims of a BYU education. Taken together, they should lead students toward wholeness: "the balanced development of the total person" (Mission Statement). These aims aspire to promote an education that helps students integrate all parts of their university experience into a fundamentally sacred way of life—their faith and reasoning, their knowledge and conduct, their public lives and private convictions. Ultimately, complete wholeness comes only through the Atonement of him who said, "I am come that they might have life, and that they might have it more abundantly" (John 10:10). Yet a university education, guided by eternal principles, can greatly "assist individuals in their quest for" that abundant "eternal life" (Mission Statement).

A commitment to this kind of education has inspired the prophets of the past to found Church schools, like BYU, on the principle that "to be learned is good if they hearken unto the counsels of God" (2 Nephi 9:29). These prophets have known the risks of such an enterprise, for "that happiness which is prepared for the saints" shall be hid forever from those "who are puffed up because of their learning, and their wisdom" (see 2 Nephi 9:42–43). Yet they have also known that education plays a vital role in realizing the promises of the Restoration; that a broad vision of education for self-reliance and personal growth is at the very heart of the gospel when the gospel is at the heart of education. To the degree that BYU achieves its aims, the lives of its students will confirm Brigham Young's confidence that education is indeed "a good thing," blessing all those who humbly and faithfully use it to bless others.

Notes

1. Brigham Young, quoted by George H. Brimhall in "The Brigham Young University," *Improvement Era*, vol. 23, no. 9 (July 1920), p. 831.

2. Brigham Young, in Reinhard Maeser, *Karl G. Maeser: A Biography* (Provo: Brigham Young University, 1928), p. 79.

3. Spencer W. Kimball, "Education for Eternity," Preschool Address to BYU Faculty and Staff, 12 September 1967, p. 11.

4. Joseph Smith, *Teachings of the Prophet Joseph Smith*, sel. Joseph Fielding Smith (Salt Lake City: Deseret Book Company, 1972), p. 137.

5. Brigham Young, *Journal of Discourses* (hereafter *JD*), vol. 10 (London: Latter-day Saints' Book Depot, 1854–86), p. 224.

6. Brigham Young, *JD* 8:32.

7. David O. McKay, "Why Education?" *Improvement Era*, vol. 70, no. 9 (September 1967), p. 3.

8. Spencer W. Kimball, "On My Honor," in *Speeches of the Year, 1978* (Provo: Brigham Young University Press, 1979), p. 137.

9. Spencer W. Kimball, "Second Century Address and Dedication of Carillon Tower and Bells," Brigham Young University, 10 October 1975, p. 12.

10. Brigham Young, *JD* 3:203.

11. Brigham Young, *JD* 14:83.

12. Brigham Young, *JD* 11:214.

Approved by the BYU Board of Trustees on March 1, 1995.

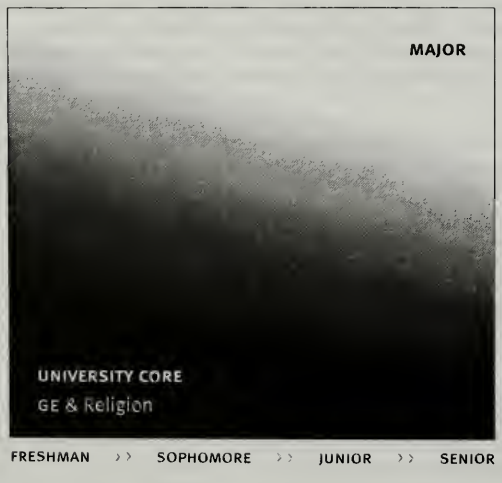
The University Core: General and Religious Education

The BYU Baccalaureate: The Ideal of Integration

Many people, when they think of university education, think primarily of the major—a bachelor's degree in, for example, economics or chemistry or engineering. But a baccalaureate is much more than a major and much more than job-based training in a particular field. The very wording of the diploma does not state the major: something greater has been earned and conferred—a *university* baccalaureate.

There are three formal components to the baccalaureate at Brigham Young University: religious education, general education, and education in a major. Of these, the first two constitute the *university core.* In accordance with The Aims of a BYU Education—which invites each student and every member of the university community to wholeness—each of the three components complements the others. They are not partitioned off from one another; none claims preeminence; together they comprise a whole, a harmony.

The following visual model differs from the way many think about general education and religion courses, as things to get out of the way as quickly as possible:



Skills and depth are developed over time as the student progresses in both the core and the major; breadth, unfolding partly from historical perspective, ought to characterize the major as well as the core. The relationship between core and major will vary in any given year according to the competing demands upon the student's attention. However, students should strive to develop their programs in such a way that a lively interrelationship between the university core and the major, in which each nourishes and informs the other, is pursued over their entire undergraduate experience.

The major and the core blend into each other. It is here that open electives play their particular role. Without prolonging time at the university, each student enjoys the latitude—and, for some, ample latitude—to design an individual educational experience. Electives enrich; choices that students make about electives define what is unique about their education. Having found a core science course engaging, for example, a student might take cognate courses to explore the subject more deeply.

Having completed the 14-hour religion requirement, students are not barred from taking further religion courses. Majoring in a technical field, students might enlarge their experience of the liberal arts beyond what the core requires. A humanities major might choose to complete an applied minor in computing skills or to construct an unofficial "mini-minor" of courses that open up a particular opportunity for employment or further education at a professional school.

Students are encouraged to acquire skills in both foreign language and mathematics, even though only one of these is required by the core. Additional curricular and extracurricular opportunities in the Honors Program are open to all students at whatever level they might wish to be involved.

Why a University Core?

All students at BYU should be taught the truths of the gospel of Jesus Christ. Any education is inadequate which does not emphasize that His is the only name given under heaven whereby mankind can be saved. . . .

Because the gospel encourages the pursuit of all truth, students at BYU should receive a broad university education. The arts, letters, and sciences provide the core of such an education, which will help students think clearly, communicate effectively, understand important ideas in their own cultural tradition as well as that of others, and establish clear standards of intellectual integrity. (BYU Mission Statement)

Most graduates, five years after completing their degrees, are not employed directly in the areas of their majors, and studies show that those do best in the long term whose breadth of education, rather than specialized training, has given them versatility. A university provides marketable skills; it bestows credentials necessary to some future goal; its graduates, statistically, make more money. But students who enroll at the university seeking only these things—or worse, students who graduate having sought only these things—cheat themselves of the best the university has to offer.

Students benefit most who desire to savor and to ponder, to recognize (in whatever eventual major) the hidden likenesses among the subjects they study, to aim at integration and wholeness. Students benefit most who take the university with them: changed by their experience, they have developed educated habits of mind; they have deepened their faith; they have learned to integrate the sacred and the secular; and they have learned that the craving for knowledge is not fully capable of satisfaction within a lifetime. Students benefit most who become lifelong learners, engaged in service to their fellow human beings.

That it integrates sacred and secular education is the hallmark of a BYU baccalaureate. All disciplines at BYU are "bathed in the light and color of the restored gospel" (Aims, "Spiritually Strengthening"). Religion courses themselves —both Doctrinal Foundation and electives—are not intended as only a devotional supplement to the educational enterprise of the university. At once rigorous and inspiring, they engage the mind and the heart in an ever deeper understanding of the gospel of Jesus Christ through close and meticulous study of the scriptures and the teachings of the living prophets.

General education joins with religious education to make *university* education different from specialized vocational training. It builds a foundation for intellectual development; it increases our understanding of civilization—of humankind's most valuable knowledge and achievements in the arts, letters, and sciences. General education teaches us the importance of critical thinking, an awareness of the past, aesthetic sensibility, and moral judgment. These, together with the training provided in verbal

and quantitative skills and in manipulating symbolic systems, help prepare us for a lifetime of learning, effective communication, responsible action, forming and judging arguments, and appreciating and creating the good and the beautiful.

Administration of the University Core

The university core is administered collaboratively by the deans of Undergraduate Education and Religious Education under the direction of the academic vice president. Religious Education is responsible for the Doctrinal Foundation and Religion Electives components and the courses that meet these requirements; Undergraduate Education is responsible for the general education components. The success of the core depends upon dedicated faculty from throughout the university. The Faculty General Education Council, chaired by the associate dean of Undergraduate Education for General Education, reviews and approves all courses meeting general education requirements within the university core.

Modification of the GE Program and Implementation of the University Core in 2004

A revised general education (GE) program and university core (in which GE and religion requirements are combined) was implemented in fall 2004. Students who enter BYU fall 2004 or thereafter must complete the new core program described below. Students who have taken classes at BYU before fall 2004 have the option to continue with the previous GE program. These continuing students should visit their college advisement centers to discuss the optimal program, given their current status.

The modifications in general education, effective fall 2004, have been made in an effort to achieve closer alignment with The Aims of a BYU Education, helping to assure that each student develop valuable skills and breadth in fundamental areas of human knowledge. To accommodate these changes, earlier restrictions against double-counting have been abandoned. It is now possible, in some instances, for two requirements to be met by the same class. Among these modifications are the following:

- A new Quantitative Reasoning requirement replaces the previous one in Pre-College Math.
- A Global and Cultural Awareness requirement has been added, with many possibilities for double-counting.
- The former Arts and Letters requirement has been separated into two, with one course in each area.
- It is possible to double-count one Civilization 2 class (designated sections only) for either the Arts, Letters, or Global and Cultural Awareness requirement.
- Social Science has been grouped with Biological Science and Physical Science under Scientific Principles and Reasoning and limited to courses grounded in the scientific method.
- A new instruction course, in conjunction with two activities classes, has been added to the Wellness requirement as an option.
- An oral communication component has been added to the Advanced Written and Oral Communication requirement.
- The minimum credit needed to complete the GE program has decreased from 34.5 credits to 31.5 credits, freeing up further space for open electives.

Who Must Complete University Core Requirements?

All students who receive undergraduate degrees from BYU are required to complete the new core requirements as outlined below, except those students who have taken classes at BYU before fall semester 2004. These latter students may complete either the new university core program or the previous GE program. Information on the previous GE program can be obtained in the college advisement centers. Students completing requirements under the previous GE program must do so before fall semester 2008.

Description of the University Core

The new university core comprises five categories titled Doctrinal Foundation; The Individual and Society; Skills; Arts, Letters, and Sciences; and Core Enrichment: Electives.

These areas are explained below. Brief statements of the ways to satisfy these requirements are provided in the accompanying table.

Consult the University Core/General Education Courses section of the current class schedule for an up-to-date list of approved courses. The current class schedule is available online at http://saas.byu.edu/classschedule.

Doctrinal Foundation and Religion Electives

Religious Education administers and offers courses in ancient and modern scripture, Church history and doctrine, and related subjects. Together these help students toward an ever deeper understanding of "the doctrines, the covenants, the ordinances, the standard works, and the history of the restored gospel" (Aims, "Intellectually Enlarging").

Because The Church of Jesus Christ of Latter-day Saints maintains that regular gospel study is a necessary part of the university experience, religion courses are provided so that students may progress in their religious understanding and convictions simultaneously with their educational progress in secular fields. As such, religion courses are not meant to be a mere devotional supplement but an integral part of the university curriculum that conforms to university standards and expectations. Therefore, while students are enrolled at BYU, they are required to take religion courses from BYU.

Doctrinal Foundation

The heart of the university core's religion component is the doctrinal foundation based upon careful, informed, and reflective study of sacred scripture and doctrines of The Church of Jesus Christ of Latter-day Saints.

While enrolled at BYU, all students must complete the Doctrinal Foundation requirement of the university core as outlined in the chart below. Note that the requirement is different for transfer students. Since the religion requirement is determined by the number of transfer hours, it is important for each student to refer to their official personal progress report or consult with a university advisement center to determine their official status and their corresponding religion requirement for graduation.

It is strongly recommended that the Book of Mormon requirement (Rel A 121/H *and* 122/H) be taken the first year at the university. **All students who have completed an LDS mission and have not previously completed these courses must enroll in Book of Mormon sections designated for returned missionaries.**

Students who are **not LDS** are strongly encouraged to enroll in Rel C 100, Introduction to Mormonism, during their first semester in residence. This course is designed to be informational, to introduce students to the culture, scriptures, and distinctive doctrines of The Church of Jesus Christ of Latter-day Saints, and to prepare them for subsequent religion classes. Rel C 100 may be used to fill either the New Testament or Doctrine and Covenants Doctrinal Foundation requirement.

Religion Electives

In addition to fulfilling the Doctrinal Foundation requirement, all students are required to take a specified number of BYU religion course hours as outlined in the chart below. Fulfilling these hours can be accomplished by taking BYU Doctrinal Foundation courses and/or BYU religion elective courses intended to enrich the Doctrinal Foundation with rigorous study from a variety of

religious topics dealing with ancient scripture and Church history and doctrine. **Religion courses taken from LDS institutes of religion (including stake institutes) or Church Educational System schools (BYU–Idaho or BYU–Hawaii) will not fulfill the required number of BYU religion hours to be taken by each student. Only religion hours taken at the Provo campus will fulfill this requirement.**

Religion courses taken at the BYU Salt Lake Center and through the BYU Independent Study program are considered part of the BYU campus and will fulfill the required number of religion courses required of each student.

Because regular gospel study should be a continuous part of a student's university experience, it would be ideal to take one religion class each semester of enrollment. **To encourage this, no more than 4 hours of religion credit per semester (spring/summer counts as one semester) may be counted toward the required religion hours to be taken at BYU.**

No religion course numbered in the 500s and 600s may be applied toward undergraduate religion credit. Religion credit from non-LDS universities will not be counted toward fulfilling any part of the religion requirement.

Total Hours Transferred to BYU	Total BYU Religion Hours to Take While Enrolled at BYU	Doctrinal Foundation Courses Required for Graduation**
0–14.9	14	Book of Mormon (RelA 121/H **and** 122/H), New Testament (RelA 111 **or** 200 **or** 211/H **or** 212/H **or** 310 **or** 311), Doctrine and Covenants (Rel C 324/H **or** 325/H).
15–29.9	12	
30–44.9	10	
45–59.9	8	
60–74.9	6	Book of Mormon (RelA 121/H **and** 122/H), Doctrine and Covenants (Rel C 324/H **or** 325/H).
75–89.9	4*	
90 or more	2*	Book of Mormon (RelA 121/H **and** 122/H).

* More credits may be needed if the Doctrinal Foundation requirement has not been completed.There are no exceptions to the Book of Mormon requirement.
** These courses may be transferred from LDS institutes, BYU–Hawaii, or BYU–Idaho but must correspond with BYU courses (number/content and hours) and will not reduce the number of total BYU religion hours that must be taken while enrolled at BYU.

The Individual and Society

The Individual and Society requirements inspire students to continue learning and serving throughout their lives. Students will actively participate in solving family, professional, religious, and social problems after leaving BYU. Under the Individual and Society category are grouped the areas of Wellness and Citizenship, the latter of which includes American Heritage and Global and Cultural Awareness.

The Wellness requirement provides instruction based on current scientific evidence and revealed knowledge about what constitutes a healthy lifestyle and offers practical experience in fitness and wellness. It provides instruction in health principles for lifelong physical well-being and emphasizes the underlying principles of cultivating a "sound mind in a sound body."

American Heritage gives students an introduction to the political and economic foundations of the American democratic system and helps students appreciate the unique contribution of America to modern civilization. The Global and Cultural Awareness requirement ensures that students develop an "informed awareness of the peoples, cultures, languages, and nations of the world." Students understand important ideas in their own cultural tradition as well as others and are prepared to "go forth to serve."

Skills

In our modern, complex society, the ability to communicate effectively is deemed a crucial skill. Under the Skills category are grouped the following requirements: first, under the heading Effective Communication is First-Year Writing, followed by Advanced Written and Oral Communication; second, Quantitative Reasoning; and third, Languages of Learning. All these requirements convey information and understanding. First-Year Writing teaches methods of library research, text analysis, and writing skills in different genres and styles. These essential skills will be used and expanded in all succeeding years of university work. Once students have identified an area for major study, the Advanced Written and Oral Communication requirement introduces them to the discourse and documentation style of their chosen discipline.

To function in a technological society, a basic knowledge of mathematics as a means of communication and problem solving is essential. Quantitative Reasoning requires all students to certify a basic level of numeracy, either with an appropriately high score on the mathematics section of the ACT or SAT exams or by completion of a BYU course. Then, under the Languages of Learning requirement, students gain advanced symbolic language skills in mathematics, statistics, or a foreign language that broadly applies to a variety of disciplines. Students thus achieve an exposure to cultures and to the ways in which practitioners of the language structure their knowledge.

Arts, Letters, and Sciences

The university's Mission Statement asserts that the "arts, letters, and sciences provide the core of [a broad university] education." These requirements build upon work in other categories of the core by developing "historical perspective" and "a lively appreciation of the artistic, literary, and intellectual achievements of human cultures" and by extending the student's understanding of "basic concepts of the . . . sciences," including "a recognition of the power and limitations of the scientific method" (*Aims*, "Intellectually Enlarging"). This category comprises a Civiliztion sequence, separate requirements in Arts and in Letters, and requirements in the Biological, Physical, and Social Sciences. The Civilization requirement provides a historical framework and a consideration of important works and themes. Through the Arts and Letters requirements, students deepen their appreciation of artistic and literary works and grow in their capacity to analyze, interpret, and draw justifiable implications from their reading and from their experience with the visual and performing arts.

The area of Scientific Principles and Reasoning contains three requirements: Biological Science, Physical Science, and Social Science. These requirements help develop an understanding of scientific reasoning and the scientific method and expose students to the excitement of discovery in these separate fields. Students will be able to evaluate scientific data to make rational decisions on science-related issues that will affect their lives and community.

Core Enrichment: Electives

This element of the core is in two parts: Religion Electives, which are discussed above in conjunction with the Doctrinal Foundation; and Open Electives, which vary according to the number of credit hours required by the major and other factors. As mentioned, one of the changes in the new general education program implemented fall 2004 was a reduction in hours, aimed at freeing up space for further open electives. Thoughtful choice of electives allows students to design a unique and enriched educational

experience. Some suggestions on how these electives might be used are given above under the heading The BYU Baccalaureate: The Ideal of Integration.

Selection and Timing of GE Classes

Each GE requirement is completed by taking one course or a combination of courses, chosen from the approved list in the table found in the current class schedule. Single-course options are most often designed for students whose major is topically distant from the requirement. On the other hand, combination-of-course options are often designed for majors related to the requirement, and may include courses a student might take to satisfy a major or minor requirement. Students should carefully consider which option best meets their educational needs, keeping in mind the aim of pursuing a lively interrelationship between the core and the major over the whole undergraduate experience.

Not all courses listed in the class schedule are appropriate for all students. For instance, some have prerequisites, some are upper-division courses, and some are designed primarily for certain majors. These courses are labeled in the university core table as either "has prerequisite" or "not for all students." Students should avoid registering for courses for which they are not academically prepared and should consult with the class instructor if they are unsure.

Occasionally it is possible to complete more than one GE requirement with a single course. For example, Civilization 2 courses are typically designated either "ARTS" for Arts-focused, "LTRS" for Letters-focused, or "GCA" for Global and Cultural Awareness-focused. A Civilization 2 (ARTS) course can be used to complete both the Civilization 2 requirement and the Arts requirement; a Civilization 2 (LTRS) course can be used to complete both the Civilization 2 requirement and the Letters requirement; and a Civilization 2 (GCA) course can be used to complete both the Civilization 2 requirement and the Global and Cultural Awareness requirement. (Note: A Civilization 2 course can double count only once—either for Arts or Letters or Global and Cultural Awareness.) Students are encouraged to use such "double-counting" sparingly—the more GE courses a student takes, the greater the breadth and value of the overall educational experience. The individual college advisement center is a valuable resource concerning questions of course selection, timing, and planning.

For First-Year Students. Although the time to complete GE requirements varies according to the major, all new students should complete First-Year Writing and the two Book of Mormon classes during their freshman year. First-Year Writing may be taken in either semester of the first year. It is also recommended that students who, because of an ACT math subscore below 22, need to fill the Quantitative Reasoning requirement do so in their first year, and that all new students begin work in the mathematics or foreign language options under Languages of Learning.

Students planning to satisfy the Scientific Principles and Reasoning/Biological Science,/Physical Science requirements with the one-course options (e.g., Biol 100, Phy S 100) should also complete these, along with American Heritage, during their first two years, making some progress on them in their first year. Civilization courses are designed as sophomore-level courses, although some programs include them during the freshman year. Advice as to when to complete the other GE requirements can be obtained at college advisement centers or department offices.

The University Core and the Honors Program

The Honors Program, which is open to all interested students, offers an array of enriched courses that simultaneously satisfy university core and honors graduation requirements. These courses take two forms: those offered through the Honors Program proper (designated Honrs), which explore disciplinary topics in creative and innovative ways; and honors sections of departmental courses (designated by /H or a title that begins with the abbreviation *Honrs*). See the Honors Program section of this catalog for a fuller description. Additional information may be obtained from the Honors Advisement Center, 102A MSRB, (801) 422-5497, or by consulting the Honors Program Course Guide at www.byu.edu/honors/.

The University Core and Freshman Academy

Many courses meeting university core requirements can be taken in an enhanced learning-community format through Freshman Academy. This one-semester program, open to all first-year students, helps them to make important connections within the university during their first semester at BYU. There are both nonhonors and honors options within the academy. A brief description of Freshman Academy is found in the Undergraduate Education section of this catalog. For fuller details see the academy Web site, frac@byu.edu, or call (801) 422-8176 or 1-877-890-5451.

Ways to Complete GE Requirements Other Than by Course Work

In addition to completing approved courses, students may satisfy individual GE requirements within the university core by (1) transferring acceptable credit from other academic institutions, (2) receiving credit from selected Advanced Placement (AP) and International Baccalaureate (IB) examinations, or (3) passing exemption or challenge examinations offered for some classes at the university.

1. Transfer Credit. The application of transfer credit to GE requirements is handled by the Transfer Evaluation Office, A-183 ASB, (801) 422-2500. Articulation agreements have been arranged with several junior and community colleges to facilitate the transfer process for students who have completed certain associate degrees. The Transfer Evaluation Office can be contacted for-up-to-date information regarding the status of those agreements with other institutions.

2. Advanced Placement and International Baccalaureate Credit. The results of some Advanced Placement (AP) and International Baccalaureate (IB) exams may be used to satisfy certain GE requirements and to obtain general university credit. AP or IB credit posted to a transfer institution will be evaluated upon BYU's standards and not those of the transfer institution. The Advisement Support Office can be contacted for details regarding credit hours and exemption from GE requirements for both AP and IB exams.

Note: College Level Examination Program. BYU stopped giving credit for general exams in 2000. At this time BYU does not give credit for subject exams either. CLEP credit posted to another institution's transcript is reevaluated based on BYU's standards.

3. Exemption and Challenge Examinations. Some requirements can be accomplished by successfully completing an examination. Two types of examinations are available: the exemption exam and the challenge exam. The primary difference between an exemption exam and a challenge exam is that an exemption exam is used exclusively to fulfill a general education requirement. No academic credit or letter grade is posted to the transcript. The challenge exam, however, is not restricted to GE courses, and academic credit and a letter grade may be posted to the transcript if the student so chooses. A student may take an exemption or challenge exam for a single course only once during each semester or term. Students do not have to be enrolled in a course to take an exemption or challenge exam. However, some of the exams are given early enough each semester/term so that students who are enrolled and pass the exam may withdraw from the course. Students not enrolled in a course have an opportunity to take the challenge or exemption exams offered at the Testing Center.

Obtaining Help with Specific Questions Concerning General Education

The essential information concerning general education is found in this catalog or online at http://saas.byu.edu/classschedule. However, the recommended source of information and advice about university core requirements is the student's college

advisement center. The ten college advisement centers, together with the University Advisement Center, 2500 WSC, provide assistance with registration, graduation requirements, policies and procedures, fields of study, changes of major, and many other aspects of academic life. Computer terminals are available in the advisement centers and other locations on campus to provide students with an up-to-date report of their academic status. Students can access a progress report (formerly Advisement by Computer or ABC Report) through Route Y on the BYU home page.

The University Core Summary

Note: Courses that include honors sections are followed by /H; a complete list of courses for each requirement is found in the current online class schedule.

DOCTRINAL FOUNDATION

BOOK OF MORMON

	Rel A 121/H and 122/H

NEW TESTAMENT

	Rel A 211/H or 212/H	OR	Jerusalem Center courses: Rel A 111, 200, 310, or 311

DOCTRINE AND COVENANTS

	Rel C 324/H or 325/H

THE INDIVIDUAL AND SOCIETY

WELLNESS

	HEPE 129	OR	HEPE 105 plus two activities: Healthy Living **plus** two approved courses chosen from an exercise sciences activity, dance activity, or outdoor skills (under RMYL). **Note:** An exercise sciences, dance, or outdoor skills course is approved for Wellness if there is the abbreviation *WELL* in bold to the right of the course listings in the current class schedule. Enrollment in an approved course with an *R* suffix may be counted only one time.

CITIZENSHIP

American Heritage	**Standard Option**		**Options Primarily for Certain Majors**
	AHtg 100/H or Honrs 240	OR	One of the following two-course combinations: Hist 220 and PlSc 110/H; Hist 220 and Econ 110/H; PlSc 110/H and Econ 110/H; Hist 221 and PlSc 110/H
Global and Cultural Awareness	One course* (many possibilities for double-counting)		

SKILLS

EFFECTIVE COMMUNICATION

First-Year Writing	Engl 115, 150/H, Honrs 150, Phil 150/H, or ELang 105.	OR	AP English 3 or higher plus library tutorial (150-level First-Year Writing strongly recommended)
Advanced Written and Oral Communication	One course.* Prerequisite: complete First-Year Writing requirement. Some majors require a specific course. Recommended during junior year.		

QUANTITATIVE REASONING

	Math 102 or higher; or Phil 205/H; or Stat 105 or higher	OR	ACT math subscore of 22 or above; SAT math subscore of 500 or above

LANGUAGES OF LEARNING

	Approved courses* from math or foreign language options.**

ARTS, LETTERS, AND SCIENCES

CIVILIZATION 1

	One course (to ca. 1500)*

CIVILIZATION 2†

	One course (from ca. 1500)*

ARTS

	One course in Arts*	OR	Designated Arts-focused Civilization 2†

LETTERS

	One course in Letters*	OR	Designated Letters-focused Civilization 2†

SCIENTIFIC PRINCIPLES AND REASONING

	Standard Options		Options for Certain Majors
Biological Science	Biol 100/H or Honrs 260	OR	One course each from two of the three groups: Group 1: Biol 150, 350; InBio 331 Group 2: Biol 276, 340; PDBio 205, 220 Group 3: Biol 240; MMBio 221
Physical Science	Phy S 100 or Honrs 259; (or Phy S 110A *and* 110B)	OR	One course each from two of the three groups: Group 1: Chem 101, 105, 111/H, 152 Group 2: Phscs 101, 105, 121, 123, 127/H, 137, 167, 220 Group 3: Geol 101/H, 103, 111, 330
Social Science	One course* from options grounded in the scientific method		

CORE ENRICHMENT: ELECTIVES

RELIGION ELECTIVES

From three to four courses (6 elective religion hours are required in addition to the Doctrinal Foundation)

OPEN ELECTIVES

Variable

Notes: *From the approved list in current class schedule. **Students completing the BM degree or BFA in music dance theatre meet this requirement through a music theory sequence. †Civilization 2 can double-count only once—either for Arts or Letters or Global and Cultural Awareness. *Honrs* refers to Honors Program offerings. Total hours: religion hours 14; the total required hours in general education may vary from 31.5 to 72 depending upon tracks chosen by students or as a result of departmental requirements.

Majors, Minors, and Advisement Resources

BYU undergraduates should develop competence in at least one area of concentration. Competence generally demands study in depth. Such in-depth study helps prepare students for their life's work; it also teaches them that genuine understanding for any subject requires exploring it fully. Students normally acquire such depth from their major and minor fields. (The Aims of a BYU Education)

In addition to completing the university core, each student must choose a specialized area of study—a major. Requirements vary considerably from major to major, but all majors share in common a sequential development from introductory foundation courses to those that expect increasingly greater depth and sophistication. As the aims indicate, "By the time they graduate, students should grasp their discipline's essential knowledge and skills . . . , and many should have participated in scholarly or creative activities that let them demonstrate their mastery." Within this sequential development, prerequisites—whether within or outside the major department—help prepare students for subsequent, more focused work in the major. Some majors also require allied course work in related fields outside the major proper.

Aptitudes, Interests, and Objectives

Success in a major depends upon the right combination of interests, skills, effort, and aptitudes. Students who choose a major only because of its job possibilities and fail to consider their own interests and aptitudes will probably be disappointed. Some majors, particularly those in professional programs (e.g., accounting) lead directly to employment in a particular field; others (e.g., philosophy) provide a rich liberal arts preparation for subsequent graduate study or professional programs (e.g., law) but may not track as directly into employment in the field of the major. Liberal arts majors do open up a great variety of employment opportunities, but students majoring in such fields need to be more conscious of exploring such opportunities over the course of the major.

Flexibility and Adaptability

The only things that can be counted on in the future are change and a continued knowledge explosion. Some futurists have estimated that today's high school graduates will be in five to seven different careers during their lifetime. Flexibility and adaptability, learning how to learn, and learning to think carefully and critically are the aims of a strong liberal arts education.

For some careers a degree in a particular major is not required. Employers respond favorably to applicants who have developed analytical skills, who have the ability to reason abstractly, and who have learned to communicate precisely and effectively.

Choosing a Major

Although some students may change their major several times before arriving at a "good fit," bouncing from major to major can prove to be costly in both time and money. Careful and thoughtful consideration before choosing a major will reduce the time to graduation and help make the most of the time at BYU. Major requirements and course descriptions can be found in the Academic Departments/Schools/Areas, Degrees, and Courses section of this catalog or online at http://saas.byu.edu/catalog/current/depts/majors.aspx. Students may find some combination of the following action steps useful in selecting a major:

1. **Review catalog information pertaining to undergraduate majors.** A list of majors can be found in the Alphabetical List of Undergraduate Majors at Brigham Young University section of this catalog. Detailed information on each major is included in the respective Academic Departments/Schools/Areas, Degrees, and Courses section of the catalog.
2. **Meet as often as needed with an open major advisor in the University Advisement Center (UAC).** Open major advisors are available to help students choose a major or career path. Contact them at 2500 WSC, (801) 422-3826, or e-mail to university_advisement@byu.edu. You can also access their Web page at http://ccc.byu.edu/uac/openadv.php.
3. **Choose university core requirements carefully.** Once a major is chosen, a college advisement center can help in the selection of classes that both satisfy university core requirements and expose students to the core subject matter of a major or career: http://saas.byu.edu/classschedule/fall/geDetail.aspx?lms=21.
4. **Enroll in a career exploration course or career workshop.** Student Development (StDev) 117, Career Exploration, is a 2-credit course designed to help students choose a major and a career path. In addition, workshops on this subject are available in the Career and Learning Information Center (2590 WSC). These workshops last for one hour and are free of charge. Juniors and seniors may want to take StDev 317, Career Transitions, a 1-credit hour course designed to help upper-division students focus on career placement and take final steps into the workforce. This course is offered only on the block at http://ccc.byu.edu/stdev/courses.php.
5. **Visit the Career and Learning Information Center (CLIC).** The CLIC (2590 WSC) has hundreds of printed and electronic resources designed to help students educate themselves about majors and career options so that they can make informed decisions. Discover, a Web-based self-assessment and career exploration program, and the book *From Major to Career,* which contains many tips for turning academic majors into careers, are available in the CLIC. Both of these tools, along with several others, are also available on the Web at http://www.byu.edu/ccc/clic.
6. **Complete a career interest inventory.** The University Advisement Center (2500 WSC) administers career interest inventories that help students match their interests with a major or career. There is a small fee for these tests.
7. **Learn, firsthand, about potential careers.** Part-time work, summer employment, internships, and volunteer work provide useful opportunities for students to collect information about what a specific career entails and to make contacts that will help them further their career goals. In addition, students might ask relatives or friends doing the kind of work they are interested in if they can be their "shadow" for a day, or perhaps longer. Alternatively, students might interview individuals in these positions, asking them about their work, the associated academic prerequisites, and so forth. For more information, go online to http://ccc.byu.edu/majortocareer/book.pdf#pagemode=bookmarks.
8. **Take introductory or seminar courses for majors/careers being considered.** BYU offers seminar courses for pre-medicine, pre-dentistry, pre-optometry, pre-law, and many of the engineering majors. There are other introductory courses such as Introduction to the English Major (Engl 195), Historian's Craft (Hist 200), and Introduction to International Studies (IAS 100) that may be helpful. Information on these courses is available through college advisement centers.
9. **Pursue multiple options.** When trying to choose between two majors, take courses that will fill major and minor requirements for both. When deciding which of the two will be the major, the other choice can possibly become a minor.

10. **Seek advice from the faculty.** Faculty members who teach and mentor in a particular major understand the purposes of the major program, its array of courses, and the opportunities available to those who complete it. Students should identify an appropriate member of the faculty and ask for assistance, which will often require an appointment.
11. **Make a firm commitment.** Pursuing a major with a firm commitment to go beyond its requirements will bring satisfaction and ensure future opportunities. Tentative or half-hearted completion of minimum requirements of any major will lead only to discouragement and detachment. Students are encouraged to choose carefully, trust their choice, and diligently pursue their studies in the major.
12. **Learn about deadlines, prerequisites, and application requirements for limited-enrollment programs.** Some majors have limited enrollment and only accept students by application. Limited-enrollment programs are identified with an asterisk (*) in the list of majors referred to in step 1. Students should become familiar with the prerequisite courses required for limited-enrollment majors several semesters before they plan to apply. When applying to limited-enrollment programs, students should have a backup plan in case they are not accepted. Advisors in the University Advisement Center can help develop alternative academic plans for reaching a given career objective.

Choosing a Minor

A minor offers students the opportunity to increase their breadth of expertise by exploring an area of study in depth but not to the same degree as in a major. Some majors require students to complete a minor from a specified set of options, but for most students a minor is optional. Students who elect to complete a minor often choose fields related to the major. Others may choose a minor in an area in which they have expertise or interest. In most cases, the minor would be chosen from a different department than the major.

Courses used to satisfy the requirements of a student's major may also be used to satisfy the requirements of a minor, unless the minor's requirements place restrictions on the double counting of courses.

Academic Advisement

The university provides a number of resources to assist students with careful and thoughtful academic and career planning while at BYU. It is expected that students will partner with the university by taking full advantage of these available resources and opportunities to enhance their chances of a successful academic experience.

The university is committed to providing students with access to academic advisors who will:

- Stay abreast of major and university requirements, and the corresponding academic resources
- Assist students by making appropriate recommendations for registration
- Help students in their pursuit of an appropriate major and career
- Aid students in planning an educational program consistent with their academic progress
- Offer friendly, attentive, informative service, listening to the student's situation before offering a solution

Students will be successful as they:

- Prepare for and keep appointments with their college advisement center (CAC) advisor; preferably at least once a calendar year
- Establish and follow an academic plan for graduation
- Use university resources such as MyMap, Major Academic Plans (MAPs), Academic Information Management (AIM), and the progress report
- Become familiar with their basic academic program and requirements
- Review personal academic progress each semester

The key components to advisement are:

- AIM (available on Route Y through the BYU home page; your net ID and your PIN are necessary for access)
- MAP (available on the Web through the BYU home page)
- College and university advisement centers

AIM

The Academic Information Management (AIM) system provides students with easy access to information on their academic progress and other vital information. In AIM, students can change their addresses and phone numbers, access their class schedules, determine course availabilities and instructor schedules, monitor their progress reports, look at their grades and BYU credit, make PIN changes, check on transfer and AP credit, and conduct personal registration procedures.

MyMAP. In the new MyMAP feature in AIM, students will be able to plan their academic course of study for the entire time they're at BYU. By using their progress report on the Build page, students can plan which classes they want to take to meet certain requirements. The Organize page will provide students with the capability of mapping their courses semester by semester. Their academic plan can then be viewed on the Register page as the student registers for classes. Easy access to course descriptions can be found on any MyMAP page by simply clicking on the course title.

Progress Reports were created to provide students with accurate academic progress information. Students can access their progress report in the AIM system (through Advisement, Registration, Student Academic Record or MyMAP). In the new MyMAP feature in AIM, students can actually use their progress report (on the Build page) as a tool to plan their academic course of study.

MAP

This supplement to the BYU Undergraduate Catalog is also a valuable academic resource for students as they plan and prepare their academic schedules. The MAP includes information regarding university core and major requirements, semester-by-semester recommendations for course selection, and course availability. Please see the following Web site for more information: http://saas.byu.edu/catalog/current/depts/majors.aspx.

College Advisement Centers (CACs)

CACs exist in every academic college. At these centers students receive personal assistance in meeting their educational goals as quickly as possible. Students should contact their advisement centers at least once a calendar year.

College of Biology and Agriculture, 380 WIDB, Provo, UT 84602-5189, (801) 422-3042, e-mail: bioag_advisement@byu.edu.

David O. McKay School of Education, 120 MCKB, Provo, UT 84602-5096, (801) 422-3426, e-mail: eac@byu.edu.

Ira A. Fulton College of Engineering and Technology, 264 CB, Provo, UT 84602-4101, (801) 422-4325, e-mail: engineering_advisement@byu.edu.

College of Family, Home, and Social Sciences, 151 SWKT, Provo, UT 84602-5535, (801) 422-3541, e-mail: fhssadvisement@byu.edu.

College of Fine Arts and Communications, D-444 HFAC, Provo, UT 84602-6333, (801) 422-3777, e-mail: advisement_secretary@byu.edu.

College of Health and Human Performance, 203 RB, Provo, UT 84602-2113, (801) 422-3638,e-mail: hhp_cac@byu.edu.

College of Humanities, 1175 JFSB, Provo, UT 84602-6120, (801) 422-4789, e-mail: humanities_advisement@email.byu.edu.

International and Area Studies, 273 HRCB, Provo, UT 84602-4526, (801) 422-3548, e-mail: kennedy_advisement@byu.edu.

Marriott School of Management, 460 TNRB, Provo, UT 84602-3113, (801) 422-4285, e-mail: msm_advisement@byu.edu.
College of Nursing, 551 SWKT, Provo, UT 84602-5544, (801) 422-4173, e-mail: nursing_advisement@byu.edu.
College of Physical and Mathematical Sciences, N-170 ESC, Provo, UT 84602-5096, (801) 422-6270, e-mail: pmsad@cs.byu.edu.

University Advisement Center

2500 WSC
(801) 422-3826
E-mail: university_advisement@byu.edu
Web: http://ccc.byu.edu/uac/openadv.php

The University Advisement Center provides academic advising and career counseling to students seeking information on how to choose majors or careers. **Services include:** general academic advisement, advisement on how to choose a major or career, graduate school advisement, career interest testing, and information and referral to appropriate university resources. The center serves as the college advisement center for open major students, but all students are welcome to use its services and resources for assistance in making informed and appropriate decisions about majors or careers. Advisement to special populations, including Summer Visiting Students, international students, and students in transition, is also provided.

Honors Advisement Center

102A MSRB
(801) 422-5497
E-mail: honors@byu.edu
Web: http://www.byu.edu/honors/

Honors education is open to all students who choose to participate. Students who intend to graduate with University Honors should consult with an advisor in the Honors Advisement Center (102A Maeser Building) for assistance with choosing honors courses and understanding honors graduation requirements.

Preprofessional Advisement Center

3328 WSC
(801) 422-3044

The Preprofessional Advisement Center serves students preparing to apply to professional graduate programs, specifically law, health (medical, dental, etc.), and graduate management (MBA, MPA, etc.). For those students who are interested in such professional graduate programs, the center offers individual counseling, admissions advice, and courses to help students explore these fields and prepare for the study and practice of the student's chosen field. The center is open to freshmen through seniors from any major.

Additional Advisement Resources: Counseling and Career Center

The Counseling and Career Center offers advisement to those who need help becoming a successful student, choosing a major or career, or considering options for graduate school. Services include the following: (1) general academic advisement, (2) academic standing advisement for students on academic warning, probation, or suspension, (3) advisement on study and learning skills, (4) advisement on choosing a major or a career, (5) graduate school advisement, and (6) workshops on career and learning skills.

Academic Support

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu
Web: http://ccc.byu.edu/academic/

Academic counseling is available for students who are experiencing difficulty with their studies. This counseling includes help in working through and overcoming obstacles to successful academic performance. Information about the university's academic standards, a student's academic standing, or help with learning problems is available at this office as well. (See also Academic Standards in the front of this catalog.)

Workshops

2590 WSC
(801) 422-2689
E-mail: workshops@byu.edu
Web: http://www.byu.edu/ccc/clic/workshops.php

Fifty-minute workshops designed to assist students with personal development, study skills, and career decision making are offered each day that BYU classes are in session. Topics include time management, communication, graduate school exploration, choosing a major, testing preparation, listening, and note taking. Printed self-help materials used in the workshops are also available.

Courses for Credit

2500 WSC
(801) 422-4007
Web: http://www.byu.edu/stlife/cdc/stdev/courses.php

Students can receive credit for courses dealing with college study skills, life planning and decision making, career exploration, and job seeking listed under Student Development (StDev) in the class schedule. See also the Student Development section of this catalog for course numbers and descriptions.

Career Counseling

2500 WSC
(801) 422-3826
E-mail: university_advisement@byu.edu
Web: http://www.byu.edu/stlife/cdc/uac/openadv.php

Career counseling is offered to all students who need help choosing a career direction. Students can meet with a university advisor who can assist with career assessment and exploration, information-gathering strategies, and decision-making needs.

Career and Learning Information Center

2590 WSC
(801) 422-2689
E-mail: clic@byu.edu
Web: http://www.byu.edu/ccc/clic

The Career and Learning Information Center (CLIC) is designed to assist students with a variety of career and/or learning concerns. Personnel, workshops, and printed and electronic resources are available to help students make informed decisions about majors, careers, and graduate school options. The CLIC also offers workshops, materials, and assistance to students who desire to improve their learning skills so that they can be more successful academically.

Testing Services

2590 WSC
(801) 422-2689
E-mail: careertests@byu.edu
Web: http://ccc.byu.edu/clic/testingservices.php

Printed and electronic inventories are available to assess career interests, abilities, and values so that students can more accurately determine suitable career options for themselves. After completing an inventory a student will meet with an advisor who will interpret the results and guide the student toward additional resources so that they can research careers. Although modest fees are charged for most tests, there are no-fee assessments available.

Career Services

2410 WSC
(801) 422-3000
Fax: (801) 422-3444
Web: http://www.byu.edu/stlife/cdc/placement/advising.php

Career Services assists BYU students and alumni from all colleges, departments, majors, and class standings with job and internship preparation and searches. Students who register at http://byu.erecruiting.com gain access to such services as advisement on job and internship search strategies, on-campus interviews with recruiters, and information about specific job and internship opportunities submitted by employers from business, education, and government. A system (eRecruiting.com) is available that allows students to register, research employers, search job postings, submit résumés to employers, schedule interviews, and check interview schedules.

Undergraduate Majors

Programs marked with an asterisk are limited-enrollment programs with special admission requirements that must be met before a student is admitted. See an appropriate advisement center for more information.

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Accounting*—BS	School of Accountancy	Marriott School of Management
Acting*—BFA	Theatre and Media Arts	Fine Arts and Communications
Actuarial Science—BS	Statistics	Physical and Mathematical Sciences
American Studies—BA		Humanities
Ancient Near Eastern Studies—BA	International and Area Studies	International and Area Studies
Animation*—BFA	Visual Arts; Theatre and Media Arts; School of Technology	Fine Arts and Communications; Ira A. Fulton College of Engineering and Technology
Anthropology—BA Emphases: Archaeology, Sociocultural	Anthropology	Family, Home, and Social Sciences
Anthropology (sociocultural double major)—BA	Anthropology	Family, Home, and Social Sciences
Art Education (K–12)*—BA	Visual Arts	Fine Arts and Communications
Art History and Curatorial Studies—BA	Visual Arts	Fine Arts and Communications
Asian Studies—BA	International and Area Studies	International and Area Studies
Athletic Training—BS	Exercise Sciences	Health and Human Performance
Bio-Agribusiness Management—BS Emphases: Agricultural Management, Biotechnology Business	Plant and Animal Sciences	Biology and Agriculture
Biochemistry—BS	Chemistry and Biochemistry	Physical and Mathematical Sciences
Bioinformatics—BS	Integrative Biology	Biology and Agriculture
Biology—BS		Biology and Agriculture
Biology Composite Teaching—BS	Integrative Biology	Biology and Agriculture
Biophysics—BS	Physiology and Developmental Biology	Biology and Agriculture
Chemical Engineering—BS	Chemical Engineering	Ira A. Fulton College of Engineering and Technology
Chemistry—BA, BS	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chemistry Education—BS	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chinese—BA	Asian and Near Eastern Languages	Humanities
Civil Engineering—BS	Civil and Environmental Engineering	Ira A. Fulton College of Engineering and Technology
Classical Studies—BA Emphases: Classical Civilization, Classics, Greek, Latin	Humanities, Classics, and Comparative Literature	Humanities
Clinical Laboratory Science*—BS	Microbiology and Molecular Biology	Biology and Agriculture
Communication Disorders	Communication Disorders	David O. McKay School of Education
Communications—BA Emphases: Advertising*, Broadcast Journalism, Communications Studies, Print Journalism, Public Relations*	Communications	Fine Arts and Communications
Comparative Literature—BA	Humanities, Classics, and Comparative Literature	Humanities
Computer Engineering*—BS	Electrical and Computer Engineering	Ira A. Fulton College of Engineering and Technology
Computer Science—BS Optional emphasis: Bioinformatics	Computer Science	Physical and Mathematical Sciences
Construction Management*—BS	School of Technology	Ira A. Fulton College of Engineering and Technology
Dance*—BA	Dance	Health and Human Performance
Dance Education*—BA	Dance	Health and Human Performance
Dietetics*—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Early Childhood Education*—BS	Teacher Education	David O.McKay School of Education
Earth and Space Science Education—BS	Geological Sciences	Physical and Mathematical Sciences
Economics—BA, BS	Economics	Family, Home, and Social Sciences

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Electrical Engineering*—BS	Electrical and Computer Engineering	Ira A. Fulton College of Engineering and Technology
Elementary Education*—BS	Teacher Education	David O. McKay School of Education
Optional emphasis: Early Childhood Education*		
English—BA	English	Humanities
English Language—BA	Linguistics and English Language	Humanities
English Teaching*—BA	English	Humanities
Environmental Science—BS	Plant and Animal Sciences	Biology and Agriculture
European Studies—BA	International and Area Studies	International and Area Studies
Exercise Science—BS	Exercise Sciences	Health and Human Performance
Exercise Sciences—BS	Exercise Sciences	Health and Human Performance
Emphasis: Fitness and Wellness Management		
Facilities Management*—BS	School of Technology	Ira A. Fulton College of Engineering and Technology
Family and Consumer Sciences Education—BS	School of Family Life	Family, Home, and Social Sciences
Family History-Genealogy—BA	History	Family, Home, and Social Sciences
Food Industry Management—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Food Science—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
French Studies—BA	French and Italian	Humanities
French Teaching—BA	French and Italian	Humanities
General Studies*—BGS	Bachelor of General Studies	Division of Continuing Education
Emphases: American Studies*, English and American Literature*, Family History*, Family Life*, History*, Management*, Psychology*, Writing*		
Genetics and Biotechnology—BS	Plant and Animal Sciences	Biology and Agriculture
Geography—BS	Geography	Family, Home, and Social Sciences
Emphases: Geographic Information Systems; Geospatial Intelligence; Global Studies; Physical Environment Studies; Travel and Tourism Studies; Urban, Rural, and Environmental Planning		
Geography Teaching—BS	Geography	Family, Home, and Social Sciences
Geology—BS	Geological Sciences	Physical and Mathematical Sciences
Optional emphasis: Environmental Geology		
German—BA	Germanic and Slavic Languages	Humanities
Emphases: Linguistics, Literature		
German Teaching—BA	Germanic and Slavic Languages	Humanities
Graphic Design*—BFA	Visual Arts	Fine Arts and Communications
History—BA	History	Family, Home, and Social Sciences
History Teaching—BA	History	Family, Home, and Social Sciences
Home and Family Living—BS	School of Family Life	Family, Home, and Social Sciences
Humanities—BA	Humanities, Classics, and Comparative Literature	Humanities
Emphases: Art History, Classical Studies, Comparative Literature, English, Foreign Literature, History, Media Arts (Film), Music, Philosophy		
Illustration*—BFA	Visual Arts	Fine Arts and Communications
Industrial Design*—BFA	School of Technology	Ira A. Fulton College of Engineering and Technology
Information Systems*—BS	Information Systems	Marriott School of Management
Information Technology*—BS	School of Technology	Ira A. Fulton College of Engineering and Technology
Integrative Biology—BS	Integrative Biology	Biology and Agriculture
International Relations—BA	International and Area Studies	International and Area Studies
Italian—BA	French and Italian	Humanities
Japanese—BA	Asian and Near Eastern Languages	Humanities
Jazz Studies*—BM	School of Music	Fine Arts and Communications
Korean—BA	Asian and Near Eastern Languages	Humanities
Landscape Management—BS	Plant and Animal Sciences	Biology and Agriculture
Latin American Studies—BA	International and Area Studies	International and Area Studies
Latin Teaching—BA	Humanities, Classics, and Comparative Literature	Humanities
Linguistics—BA	Linguistics and English Language	Humanities
Management*—BS	Marriott School of Management	Marriott School of Management
Emphases: General Business*; Entrepreneurship*; Finance*; Global Supply Chain Management*; Marketing Management*; Organizational Behavior/HR*; Strategy*		
Manufacturing Engineering Technology—BS	School of Technology	Ira A. Fulton College of Engineering and Technology

Academic Programs and Degrees Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Marriage, Family, and Human Development—BS	School of Family Life	Family, Home, and Social Sciences
Mathematics—BS	Mathematics	Physical and Mathematical Sciences
Mathematics Education—BS	Mathematics Education	Physical and Mathematical Sciences
Mechanical Engineering*—BS	Mechanical Engineering	Ira A. Fulton College of Engineering and Technology
Media Arts Studies—BA	Theatre and Media Arts	Fine Arts and Communications
Media Music Studies*—BM	School of Music	Fine Arts and Communications
Microbiology—BS	Microbiology and Molecular Biology	Biology and Agriculture
Middle East Studies/Arabic—BA	International and Area Studies	International and Area Studies
Molecular Biology—BS	Microbiology and Molecular Biology	Biology and Agriculture
Music*—BA	School of Music	Fine Arts and Communications
Music Composition*—BM	School of Music	Fine Arts and Communications
Music Dance Theatre*—BFA	Dance; School of Music; Theatre and Media Arts	Fine Arts and Communications; Health and Human Performance
Music Education*—BM Emphases: K–12 Choral*, K–12 Instrumental*, Elementary Music Specialist*	School of Music	Fine Arts and Communications
Music Performance*—BM Emphases: Brass*, Combined Piano and Organ*, Organ*, Percussion*, Piano*, String*, Vocal*, Woodwind*	School of Music	Fine Arts and Communications
Neuroscience*—BS	Neuroscience Center	Biology and Agriculture; Family, Home, and Social Sciences
Nursing*—BS	Nursing	Nursing
Nutritional Science—BS	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Philosophy—BA	Philosophy	Humanities
Photography*—BFA	Visual Arts	Fine Arts and Communications
Physical Education Teaching/Coaching (K–12)*—BS	Exercise Sciences	Health and Human Performance
Physical Science Teaching—BS		Physical and Mathematical Sciences
Physics—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physics, Applied—BS Emphases: Computer Science, Selected Options	Physics and Astronomy	Physical and Mathematical Sciences
Physics-Astronomy—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physics Teaching—BS	Physics and Astronomy	Physical and Mathematical Sciences
Physiology and Developmental Biology—BS	Physiology and Developmental Biology	Biology and Agriculture
Plant Biology—BS	Plant and Animal Sciences	Biology and Agriculture
Political Science—BA	Political Science	Family, Home, and Social Sciences
Portuguese—BA	Spanish and Portuguese	Humanities
Psychology—BS	Psychology	Family, Home, and Social Sciences
Public Health Education—BS	Health Science	Health and Human Performance
Recreation Management and Youth Leadership—BS Emphases: Leisure Services Management, Therapeutic Recreation	Recreation Management and Youth Leadership	Health and Human Performance
Russian—BA	Germanic and Slavic Languages	Humanities
School Health Education—BS	Health Science	Health and Human Performance
Social Science Teaching*—BS	Teacher Education	David O. McKay School of Education
Social Work*—BS	School of Social Work	Family, Home, and Social Sciences
Sociology—BS	Sociology	Family, Home, and Social Sciences
Sound Recording Technology*—BM	School of Music	Fine Arts and Communications
Spanish—BA	Spanish and Portuguese	Humanities
Spanish Teaching*—BA	Spanish and Portuguese	Humanities
Spanish Translation*—BA	Spanish and Portuguese	Humanities
Special Education—BS Emphases: Mild/Moderate Disabilities*, Severe Disabilities*	Counseling Psychology and Special Education	David O. McKay School of Education
Statistics—BS Emphases: Statistical Science, Biostatistics,Business Analysis, Quality Science	Statistics	Physical and Mathematical Sciences
Studio Arts*—BFA	Visual Arts	Fine Arts and Communications
Technology Teacher Education*—BS	School of Technology	Ira A. Fulton College of Engineering and Technology
Theatre Arts Education—BA	Theatre and Media Arts	Fine Arts and Communications
Theatre Arts Studies—BA	Theatre and Media Arts	Fine Arts and Communications
Visual Arts*—BA	Visual Arts	Fine Arts and Communications
Wildlife and Wildlands Conservation—BS	Plant and Animal Sciences	Biology and Agriculture

Undergraduate Minors

Minors Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Advertising Design*	Visual Arts	Fine Arts and Communications
Aerospace Studies	Aerospace Studies (Air Force ROTC)	Marriott School of Management
African Studies	Anthropology	Family, Home, and Social Sciences
Ancient Near Eastern Studies	International and Area Studies	International and Area Studies
Anthropology	Anthropology	Family, Home, and Social Sciences
Arabic	Asian and Near Eastern Languages	Humanities
Art*	Visual Arts	Fine Arts and Communications
Art Education*	Visual Arts	Fine Arts and Communications
Art History and Curatorial Studies	Visual Arts	Fine Arts and Communications
Asian Studies	International and Area Studies	International and Area Studies
Astronomy	Physics and Astronomy	Physical and Mathematical Sciences
Ballroom Dance*	Dance	Health and Human Performance
Chemistry	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chemistry Education	Chemistry and Biochemistry	Physical and Mathematical Sciences
Chinese	Asian and Near Eastern Languages	Humanities
Chinese Teaching	Asian and Near Eastern Languages	Humanities
Classical Studies Options: Classics, Greek, Latin	Humanities, Classics, and Comparative Literature	Humanities
Coaching and Teaching Physical Education	Exercise Sciences	Health and Human Performance
Communication Disorders	Communication Disorders	David O. McKay School of Education
Communications	Communications	Fine Arts and Communications
Computer Science	Computer Science	Physical and Mathematical Sciences
Computer Science Teaching	Computer Science	Physical and Mathematical Sciences
Driver Safety Education	Health Science	Health and Human Performance
Economics	Economics	Family, Home, and Social Sciences
Editing	Linguistics and English Language	Humanities
Elementary Physical Education	Exercise Sciences	Health and Human Performance
English	English	Humanities
English Teaching	English	Humanities
Family History—Genealogy	History	Family, Home, and Social Sciences
Family Life	School of Family Life	Family, Home, and Social Sciences
Food Science	Nutrition, Dietetics, and Food Science	Biology and Agriculture
French	French and Italian	Humanities
French Teaching	French and Italian	Humanities
Geographic Information Systems	Geography	Family, Home, and Social Sciences
Geography	Geography	Family, Home, and Social Sciences
Geography Teaching	Geography	Family, Home, and Social Sciences
Geology	Geological Sciences	Physical and Mathematical Sciences
Geology Teaching	Geological Sciences	Physical and Mathematical Sciences
German	Germanic and Slavic Languages	Humanities
German Teaching	Germanic and Slavic Languages	Humanities
Gerontology	School of Family Life	Family, Home, and Social Sciences
Health Education	Health Science	Health and Human Performance
Hebrew	Asian and Near Eastern Languages	Humanities
History	History	Family, Home, and Social Sciences
History Teaching	History	Family, Home, and Social Sciences
Humanities	Humanities, Classics, and Compartive Literature	Humanities
Humanities Computing	Linguistics and English Language	Humanities
Information Technology	School of Technology	Ira A. Fulton College of Engineering and Technology
International Development	International and Area Studies	International and Area Studies
Italian	French and Italian	Humanities
Japanese	Asian and Near Eastern Languages	Humanities
Japanese Teaching	Asian and Near Eastern Languages	Humanities
Korean	Asian and Near Eastern Languages	Humanities
Landscape Management	Plant and Animal Sciences	Biology and Agriculture
Latin American Studies	International and Area Studies	International and Area Studies
Latin Teaching	Humanities, Classics, and Comparative Literature	Humanities
Linguistics	Linguistics and English Language	Humanities
Linguistics Computing	Linguistics and English Language	Humanities

Minors Offered	Departments/ Schools/Centers	Colleges/Schools/ Divisions/Centers
Logic	Philosophy	Humanities
Management	Marriott School of Management	Marriott School of Management
Manufacturing	School of Technology	Engineering and Technology
Marriage, Family, and Human Development	School of Family Life	Family, Home, and Social Sciences
Mathematics	Mathematics	Physical and Mathematical Sciences
Mathematics Education	Mathematics Education	Physical and Mathematical Sciences
Media Arts Studies*	Theatre and Media Arts	Fine Arts and Communications
Microbiology	Microbiology and Molecular Biology	Biology and Agriculture
Middle East Studies	International and Area Studies	International and Area Studies
Military Science	Military Science (Army ROTC)	Marriott School of Management
Modern Dance*	Dance	Health and Human Performance
Molecular Biology	Microbiology and Molecular Biology	Biology and Agriculture
Music	School of Music	Fine Arts and Communications
Native American Studies	History	Family, Home, and Social Sciences
Nutrition	Nutrition, Dietetics, and Food Science	Biology and Agriculture
Philosophy	Philosophy	Humanities
Physics	Physics and Astronomy	Physical and Mathematical Sciences
Physics Teaching	Physics and Astronomy	Physical and Mathematical Sciences
Political Science	Political Science	Family, Home, and Social Sciences
Political Science Teaching	Political Science	Family, Home, and Social Sciences
Portuguese	Spanish and Portuguese	Humanities
Psychology	Psychology	Family, Home, and Social Sciences
Psychology Teaching	Psychology	Family, Home, and Social Sciences
Russian	Germanic and Slavic Languages	Humanities
Russian Teaching	Germanic and Slavic Languages	Humanities
Scandinavian Studies	Humanities, Classics, and Comparative Literature	Humanities
Scouting Administration	Recreation Management and Youth Leadership	Health and Human Performance
Sociology (General)	Sociology	Family, Home, and Social Sciences
Spanish	Spanish and Portuguese	Humanities
Spanish Teaching	Spanish and Portuguese	Humanities
Statistics	Statistics	Physical and Mathematical Sciences
TESOL	Linguistics and English Language	Humanities
TESOL K–12	Linguistics and English Language	Humanities
Theatre and Media Arts Design	Visual Arts	Fine Arts and Communications
Theatre Arts Education	Theatre and Media Arts	Fine Arts and Communications
Theatre Studies	Theatre and Media Arts	Fine Arts and Communications
Travel and Tourism Studies	Geography	Family, Home, and Social Sciences
Urban, Rural, and Environmental Planning	Geography	Family, Home, and Social Sciences
Western American Studies		Humanities
Women's Studies	Women's Research Institute	Family, Home, and Social Sciences
World Dance*	Dance	Health and Human Performance

Brigham Young University: A Unique Environment

Religious Environment

The Church of Jesus Christ of Latter-day Saints sponsors BYU to provide a university education in an atmosphere that nurtures spiritual growth and a strong conviction of the divinity of Jesus Christ. Church programs are closely correlated at all levels with the activities of the university, and students will find many opportunities to grow spiritually.

Religion Classes

All students at BYU should include regular gospel study as a continuous part of their university experience. Full-time undergraduate students take one religion class each semester of enrollment until a total of 14 semester hours of religion credit has been earned. See The University Core section of this catalog for more information.

University Devotionals

University devotionals, held throughout the year on Tuesdays at 11:05 a.m., provide an inspirational and integrative part of the university experience. These assemblies are occasions to celebrate the shared sense of community values in the university. Participation in these gatherings will renew spiritual commitment and extend knowledge of significant religious, intellectual, and cultural matters.

Devotional speakers, selected from the General Authorities and other leaders of the Church and university, come to teach the gospel and affirm the spiritual dimension of the university experience for students, faculty, and staff.

Most campus offices and services are closed during university assemblies so that members of the university community may participate.

BYU Stakes and Wards

To give students maximum opportunity to participate, the Church is organized into a number of BYU stakes composed of several wards of approximately 150 members each. All single students living away from home who are members of The Church of Jesus Christ of Latter-day Saints become members of a BYU ward. Single LDS students living at home have the option of attending their home ward or a designated BYU ward. Married students not living in university housing may attend either the designated BYU ward or the residential ward in which they live. An additional opportunity is provided by regular Church Educational System (CES) firesides, usually held on the first Sunday of the month.

Other Religious Denominations

Approximately twenty-five other religious denominations are represented in the BYU student body. These students are encouraged to attend a congregation of their faith in the surrounding area, if possible.

Academic Environment

The academic environment extends beyond the four walls of a university classroom. Serious students seek enrichment in the library, at university forums and lectures, and through research. Some students may choose to become involved in the Honors Program or live in one of the "quiet halls" on campus—and everyone benefits from drawing on the resources available at college advisement centers.

New Student Orientation

The purpose of New Student Orientation (NSO) is to help new and transfer students become familiar with the academic, spiritual, moral, and social opportunities and challenges at Brigham Young University. Additionally, NSO provides new students several opportunities to become acquainted with the resources available to them on campus. Finally, it offers a great chance to meet new friends among other students, faculty members, and staff personnel.

NSO events and activities range from the academic through the informational to the out-and-out fun, but they are always friendly and focused on the needs of new students. NSO activities vary according to the term or semester. They may include campus tours; learning about the library, academic advising, scholarships, financial aid, and honors education; and an introduction to several of the emotionally and spiritually satisfying traditions of the Y.

Many of the activities are organized around Y Groups, small cohorts of students led by upperclassmen, which offer students individualized attention. Orientation at BYU balances the various needs of new students by combining appropriate resources, activities, and personnel. To feel comfortable in an institution as complex as BYU, with its myriad of opportunities, New Student Orientation is practically a requirement.

New Student Orientation is held three times a year, immediately prior to winter semester, summer term, and fall semester. Please refer to the Web page at http://orientation.byu.edu for detailed information and registration.

University Forums

University forums are held on selected Tuesdays at 11:05 a.m. and are designed to enrich the general education experience. Speakers are noted authorities in the arts, sciences, humanities, media, and government, chosen for their contributions to their field and their ability to inspire and communicate. Participation in these assemblies and the associated question-and-answer sessions prompts inquiry into significant intellectual, cultural, and social issues and helps lay the foundation for lifelong learning.

Harold B. Lee Library

The Harold B. Lee Library (HBLL) collection numbers over eight million volumes, including books, periodicals, government documents, microfilm, and other nonprint items. The library's Web-based catalog contains numerous full-text databases and many electronic indexes to other sources.

The library is a depository for United States government documents and regularly receives publications of state and local governments. The Religion and Family History Library supports family history and genealogy through an extensive collection of microfilm, microfiche, and online resources. L. Tom Perry Special Collections houses non-circulating books and manusacripts related to Mormonism, western Americana, incunabula, Victorian and Edwardian literature, historical manuscripts and photographs, motion pictures, and many other preserved items for research and use.

The general collection is housed on five levels of the library. An information and general reference desk is located on the ground floor (level 3), and professional librarians and support staff provide research assistance at eight additional subject

reference desks. Instruction in library and information literacy is available. The general library facilities are open to students, faculty, administrative and staff personnel, alumni, and other community patrons.

BYU libraries provide excellent teaching and research support for faculty and other university personnel. Library subject specialists and archival curators are available for instruction or lectures on library resources and to assist in designing class assignments that involve library research.

The library is open during fall and winter semesters from 7:00 a.m. to midnight Monday through Friday and from 8:00 a.m. to midnight Saturday.

BYU students and faculty may also use the facilities of other Utah college and university libraries in the United States through cooperative agreements implemented through state and national library consortia. Libraries operated by The Church of Jesus Christ of Latter-day Saints are also available to BYU students and employees, including the library of the Church Historical Department located in Salt Lake City.

The Lee Library provides a faculty delivery service for pickup and delivery of books to and from faculty and administrative offices.

For books unavailable at the Harold B. Lee Library, an interlibrary loan service is available. Requests should be submitted through the ILLiad request system available on the library's Web page (www.library.byu.edu).

Research and Creative Activities at BYU

One of the most exciting and valuable learning experiences available to both undergraduate and graduate students at BYU is the opportunity to participate in original research and creative activities. BYU has accomplished faculty members in all areas, many of whom enjoy international reputations for the quality of their creative endeavors. Many professors enlist the help of undergraduate students, who work side by side with faculty mentors and graduate students in a laboratory or studio setting.

A wide variety of research experiences are available in many departments across campus. For example, the student might be involved in the synthesis of a new medicinal drug in the chemistry laboratory or participate in the discovery of a new species of dinosaur on a Colorado mesa. Other examples of programs involving student participation include the study of robotics systems, computer architecture, battery technology, high-energy physics, international business methods, child psychology, drug-induced birth defects, educational methodology, molecular genetics, social implications of drug use, stability and satisfaction in marriage, Church history, and a host of other topics. Students who are interested in participating in research programs are encouraged to contact their major department chair or speak directly with individual professors.

The **Office of Research and Creative Activities (ORCA)** manages, on behalf of the administration, two programs whose purpose is to bring together students and faculty in mentored experiences. The first is the ORCA Mentoring Grants for Undergraduates Program. Requests for proposals go out to all undergraduate, full-time students. One-third of all proposals are usually funded at $1,800 each. Awards are made early in the semester following application. The second is the Mentored Environments Grants Program. Faculty are encouraged to submit proposals to create or enhance a mentored environment for undergraduate and graduate students. Awards range from $2,000 to $20,000, and proposals are collected in late fall and awarded in midwinter. For more information, contact any department or college, or contact ORCA at A-285 ASB, (801) 422-3841, http://orca.byu.edu.

Internships

Internships and other applied learning experiences, such as clinical and field studies, integrate academic studies with professional or career-related work experience. They are required by some degree programs and recommended by others to strengthen or complement a student's major or minor field of study. Students may combine internship credit with Independent Study courses and still pay regular tuition through the Semester Away program. In addtion to experiences within the United States, opportunities in international settings are also available when approved by the David M. Kennedy Center for International Studies.

Students who want or need academic credit for internships and other formal applied, cooperative learning experiences must receive prior department and university approval and complete formal registration before commencing. Course offerings vary according to student and program needs. Registration in a department's 199R, 299R, 399R, 496R, or 599R course is required for internship credit. Individual departments specify course numbers for clinical, practicum, or other applied, cooperative learning courses. Credit varies, generally ranging from 0.5 to 12 semester hours. Grades are based on both academic and work-related accomplishments.

To learn more about the opportunities and benefits of applied, cooperative learning experiences, contact a college or department internship coordinator, visit or call the BYU Internship Office (130A B-34, 801-422-3337), or go to http://www.byu.edu/intern.

Center for Service and Learning

Main Office: 2010 WSC, (801) 422-1277
Community Service Office: 2330 WSC, (801) 422-8686

Seeking to instill a desire for lifelong service, the Center for Service and Learning (CSL) works to provide every student with a meaningful service opportunity. The CSL's valuable network of community resources supports student volunteers, who expand their experience by reaching beyond themselves to achieve greater awareness of their surroundings and the local community. As students learn to better serve the human family, they also improve their minds and talents.

The CSL Main Office includes administrative offices, Tutoring Services, and Tutor Outreach to Provo Schools (TOPS). Tutoring is free for BYU students, and they can expect to meet with their tutor for one to three hours per week. Available for most BYU classes, tutors are frequently requested for GE math and science courses. Because tutors are provided on a first come, first served basis, students are encouraged to sign up early. Volunteer tutors are recruited throughout the year. The TOPS program offers opportunities for students to gain valuable experience serving as mentors and tutors in the local public schools.

The CSL Community Service Office coordinates over 28 programs. These programs, run by students, range from blood drives to mentoring. In addition, an Urgent Needs board and a database posting current service opportunities are maintained by the center. The center's Web site, http://centerforservice.byu.edu, is an excellent resource offering online access to all opportunities. The Volunteer Solutions database found on the Web site allows students to search according to their availability and interests (major and hobbies). These listings are available in hard copy at the center. Opportunities are available for individuals, FHE groups, or wards and stakes. For immediate "hands on" service, the center offers the Stop & Serve program.

Student Development Course Work

The Counseling and Career Center offers courses under the title Student Development. These courses are designed to help with the personal challenges and tasks facing college students. Some of the relevant student-centered topics are college study skills, life planning, time management, decision making, and test taking strategies. Several courses are also designed to help students decide on a college major and a career and to make the transition from college to the world of work. Each class has material to help students identify their values, develop character, and make progress with their personal goals for life. The BYU Undergraduate Catalog and the current class schedule list these courses under Student Development. For further information contact the Counseling and Career Center, 2510 WSC, (801) 422-4007.

Academic Support Office

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu

All students admitted to the university have the potential to succeed academically; however, some students have difficulty achieving the level of success required to remain in good academic standing. The mission of the Academic Support Office is to assist students in maintaining that level of academic success. Administered through the Counseling and Career Center, a department of Student Life, the Academic Support Office uses the combined resources of the university to help students resolve most academic problems.

Students with academic problems often have difficulties in one or more of the following areas: (1) Personal concerns outside the academic realm—such as adjustment problems, illness, or relationship problems—that distract from academic goals. Such problems may be addressed by helping students refocus on their goals. (2) Inadequate academic preparation to meet the rigors of a university experience. Study-skills training helps students identify strategies appropriate to the university experience. (3) Learning styles that worked in high school but are not productive at the university. A learning-style assessment and counseling may help students identify and use academic strengths more successfully. (4) Ambiguous career goals that cause students to flounder within the university. With career guidance they can move toward a more timely graduation.

Counselors are trained to assist students with time management, study skills, learning style, career choice, and other academic concerns. Students who experience academic difficulties are encouraged to contact the Academic Support Office.

Graduate Studies

B-356 ASB
Phone: (801) 422-4091

To the student seeking advanced study, Brigham Young University offers a variety of graduate degree opportunities. Excellent graduate programs can be found in each of the colleges and schools, and successful completion of one results in the awarding of a master's or doctoral degree.

The master's degree requires advanced course work, demonstrated mastery in vital aspects of a discipline, skill in research methodology and theory, and preparation for future creative work. In certain disciplines, graduate programs blend scholarly insight with technical knowledge and skill. Integrative examinations, a major culminating piece of written work or performance, and an accompanying oral defense of that work may be required.

The doctoral degree requires the student to demonstrate an impressive scholarly competence, which includes the ability to conduct and report research in a highly effective manner. Advanced systematic study in a discipline is also essential and is followed by comprehensive examinations that require students to integrate and understand the collective knowledge of their disciplines. A dissertation resulting from independent research is defended in a concluding oral examination.

Students who are interested in pursuing advanced degrees are encouraged to become involved in research and creative activities during their undergraduate experience.

For information about master's and doctoral degree programs, students should consult the 2007–2008 BYU Graduate Catalog online at www.byu.edu/gradstudies.

Application information is available online at www.byu.edu/gradstudies, through Graduate Studies, and through individual departments. For information regarding admission to the J. Reuben Clark Law School, see the Law School section of this catalog.

Cultural Environment

Students can immerse themselves in culture at BYU. Dance, theatre, music, art exhibits, museums—all nourish the soul seeking after "anything virtuous, lovely, or of good report or praiseworthy."

BYU dance and music performance groups present major performances on campus each year and many tour throughout the world. Popular and classical plays, films, and musicals, as well as original works, are also offered throughout the year. The weekly International Cinema Program is another cultural offering worthy of note.

Performing Arts Series

The BYU Performing Arts Series presents some of the most celebrated artists in the world. Concerts and productions are scheduled throughout each year in the Harris Fine Arts Center and other venues. Season or individual event tickets are available at reduced prices for students, faculty, and staff. For further information contact the Fine Arts Ticket Office at (801) 422-HFAC (4322) or email performance.byu.edu.

In recent years the Performing Arts Series has included:

Cleveland Sign Stage
Body Vox
Angela Chang
Ballet West
Nancy Ambrose King
Leigh Howard Stevens
Alison Brown Quartet
Utah Symphony
Trio Indiana
My New Music Ensemble

Faculty and Student Performances, Exhibitions, and Showcases

Throughout the year the faculty of the Departments of Visual Arts, Dance, Theatre and Media Arts, and the School of Music are featured in exhibitions, plays and other productions, and music performances.

As part of their educational experience, students, both individually and in groups, present concerts, exhibitions, films, plays, recitals, and productions. Theatre Ballet, The Dancers' Company, International Folk Dance Ensemble, Ballroom Dance Company, Philharmonic and Chamber Orchestras, Young Ambassadors, Living Legends, University Singers, and Synthesis Jazz Ensemble are but a few of the groups that perform in the various university venues. Plays, musical theatre, and opera, as well as art and design exhibitions, are also a part of the outstanding student fare available to the university community.

For further information contact the Fine Arts Ticket Office at (801) 422-HFAC (4322), or email performances.byu.edu.

Museum of Art

The Museum of Art was completed and opened during fall 1993. Funded by private donors, the 100,000-square-foot museum is located directly north of the Harris Fine Arts Center. A sculpture garden separates the two buildings, and together they form a striking visual and performing arts center. The museum houses the university's superb collection of paintings, sculpture, decorative arts, and works on paper. Major bodies of work the university owns are by such eminent artists as Mahonri Y. Young, J. Alden Weir, Maynard Dixon, C. C. A. Christensen, and Minerva Teichert. Besides its rich array of American art, the collection includes rare prints by Rembrandt, Dürer, and Daumier and a growing collection of important religious works.

Major traveling exhibitions and exhibitions from the museum's permanent collections are scheduled on a rotating basis. The museum offers a variety of educational programs for campus and community audiences as well. Included in the Horne Center for the Study of Art are a print study room, a seminar

room, and classrooms. The museum also features a café, bookstore, and auditorium.

Students play an important role in the Museum of Art. Not only are they employed in service capacities in each of the museum's departments but the museum also offers a rigorous internship program that affords selected students opportunities to be mentored on significant museum projects. Many students also serve as volunteer docents. While earning course credits toward their degrees, students gain valuable experience in museum education, curation, registration, administration, and even fabrication.

M. L. Bean Life Science Museum

Larry L. St. Clair, Director
Jack Sites, Associate Director
Marta Adair, Assistant Director
290 MLBM

The Monte L. Bean Museum is a fully functional, accredited, professional life science museum. Its vast teaching and research collections include nearly two million arthropods, fish, amphibians, reptiles, mammals, birds, and prepared shells, and more than 600,000 plants, lichens, and bryophytes. Specimens for these collections, which represent creative work by university faculty and students, have been gathered throughout the world, making the museum one of the major repositories of scientific collections in the western United States.

The museum and its collections are utilized by university classes in integrative biology, plant and animal science, education, art, and other disciplines. The Monte L. Bean Life Science Museum also maintains and manages the Lytle Nature Preserve. Located in the northernmost extension of the Mojave Desert southwest of St. George, Utah, this 562-acre desert classroom is in a part of Utah that is unique not only for its plant and animal communities but also for its setting.

Public programs include changing, rotating, and permanent exhibits of natural communities that illustrate the fascinating relationships between plants, animals, and their physical environment. Educational programs serve more than 200,000 annual visitors and provide classes and programs for public and private schools and many other organizations. Museum hours are Monday through Friday from 10:00 a.m. to 9:00 p.m. and Saturday from 10:00 a.m. to 5:00 p.m. The museum is closed on Sunday. Admission is free.

The Western North American Naturalist, a nationally recognized natural history journal, is published from the museum. Other museum publications include professional and popular works such as *A Utah Flora*, *Snakes of Utah*, and *Common Rocky Mountain Lichens*.

Museum of Peoples and Cultures

Paul R. Stavast, Interim Director
Glenna Nielsen, Curator of Collections
105 ALLN

The Museum of Peoples and Cultures (MPC) houses, cares for, and performs research on archaeological and ethnographic collections from around the world. The strengths of the museum's holdings are in prehistoric Utah, the American Southwest, Mesoamerica, Andean cultures, and Polynesia. An approved state and federal archaeological repository, the museum also holds a noncirculating library and a photographic archive documenting BYU archaeological research and artifactual materials.

Institutional objectives are to interpret and help elucidate the history and culture of the peoples of the world and to convey that knowledge to the scholarly community as well as to the general public. The museum's strongest commitment lies in serving the teaching and research functions of the university. In this, BYU's "teaching museum," not only do students perform office and collections duties but they also curate all exhibitions as part of the formal curricula taught by museum staff adjunct to the Department of Anthropology. Students plan and execute public programs and design promotional strategy as part of their course work as well. These curricula are available in the department's Certificate in Museum Practices program. Students concurrently enrolled in a cognate master's program are eligible to apply to this graduate program. Three of the certificate courses (Anthr 511, 522, and 525) have no prerequisite and are available for undergraduate enrollment.

The museum's student exhibitions are staged in Allen Hall and change with each certificate class. The museum also produces occasional satellite exhibits at other university locations, such as the Museum of Art and the Joseph Smith Building. Tours of the Allen Hall galleries can be arranged by calling (801) 422-0020. Because scheduling is based on student employee availability, it is advisable to book tours from one to three weeks in advance. Visitors may also choose to guide themselves through the galleries, but groups larger than fifteen people should contact the museum in advance for logistical instructions.

The MPC offers many community educational opportunites. Available for loan to classrooms and inbound populations are anthropology teaching kits that explore the native cultures of various geographical areas. The kits include replica artifacts, handicrafts, and educational books and videos. Students and civic volunteers are invited to help with educational programming, public relations, archaeological research, and public presentations. The MPC hosts an activity patch program for Scouts of all ages and other interested parties. Museum patches can be earned by visiting the museum and completing the patch requirements. For information about any of these programs, call (801) 422-0020.

Located at 700 North 100 East in Provo (one block south of the Brick Oven restaurant), the museum is open from 9:00 a.m. to 5:00 p.m. Monday through Friday and at other times through appointment. Admission is free, and guided tours can be arranged for a nominal charge. The MPC is closed on holidays and for two weeks in December between fall and winter semesters. Office and library hours vary according to student schedules.

Recreational Environment

Students can enjoy the small-town friendliness of Provo or drive 45 miles to the north for the cosmopolitan diversity that Salt Lake City offers. Whereas Salt Lake City is home to Ballet West, the Mormon Tabernacle Choir, and the Utah Symphony, the Provo area prides itself on its own Utah Valley Symphony and several fine community music, dance, and theatre groups.

Intercollegiate Competition

BYU begins its seventh year in the Mountain West Conference, which also includes the Air Force Academy, Colorado State University, the University of Nevada—Las Vegas, the University of New Mexico, San Diego State University, Texas Christian University, the University of Utah, and the University of Wyoming.

BYU sponsors twenty-one NCAA intercollegiate sports for men and women. The men compete in ten sports: baseball, basketball, cross country, football, golf, swimming and diving, tennis, indoor track, outdoor track and field, and volleyball.

The women compete in eleven intercollegiate sports: basketball, cross country, golf, gymnastics, soccer, softball, swimming and diving, tennis, indoor track, outdoor track and field, and volleyball.

Consistently ranked among the nation's top twenty-five athletic programs, BYU has won NCAA championships in football, men's track and field, men's golf, women's cross country (four), and men's volleyball (three). The Cougars have also won two NIT titles in men's basketball.

Extramural Competition

The extramural sports program at BYU provides opportunities for students to participate on an intercollegiate level throughout the United States and Canada in team sports not designated NCAA.

One of the best organized and most respected programs in the country, BYU's extramural sports program offers four sports for men (soccer, racquetball, lacrosse, and rugby) and one sport for women (racquetball). Many of the teams have been nationally ranked during the last several years.

Athletic Facilities

BYU's athletic facilities are among the best in the nation. Complementing the major sports complexes—the Marriott Center, football stadium, baseball diamond, softball diamond, indoor tennis pavilion, and track and field stadium—are the Richards Building and the Smith Fieldhouse. The Richards Building has facilities for racquetball, volleyball, basketball, aerobics, dance, and swimming, and the Smith Fieldhouse houses ball courts, weight rooms, an indoor track, and a west annex big enough for spring batting practice.

Intramural Activities

The campus intramural program, consisting of more than thirty events involving thousands of participants in both men's and women's activities, is one of the largest and most comprehensive in the United States. Students may participate in team activities and individual events. The intramural program offers divisions for different skill levels in each activity and provides awards for the winners in each division. Numerous employment opportunities are available as game supervisors and officials.

A Great Outdoors

The Wasatch Mountains overlook BYU on the east, and to the west lies Utah Lake. Within an hour's drive are several canyons and ski resorts; six national parks are only a half day away. Outdoor gear can be rented on campus for everything from skiing to windsurfing.

Church Educational System Honor Code

Brigham Young University, Brigham Young University—Hawaii, BYU—Idaho, and LDS Business College exist to provide an education in an atmosphere consistent with the ideals and principles of The Church of Jesus Christ of Latter-day Saints. That atmosphere is created and preserved through commitment to conduct that reflects those ideals and principles. Members of the faculty, administration, staff, and student body at BYU, BYU—Hawaii, BYU—Idaho, and LDSBC are selected and retained from among those who voluntarily live the principles of the gospel of Jesus Christ. Observance of such is a specific condition of employment and admission. Those individuals who are not members of The Church of Jesus Christ of Latter-day Saints are also expected to maintain the same standards of conduct, except church attendance. All who represent BYU, BYU—Hawaii, BYU—Idaho, and LDSBC are to maintain the highest standards of honor, integrity, morality, and consideration of others in personal behavior. By accepting appointment on the faculty, continuing in employment, or continuing class enrollment, individuals evidence their commitment to observe the Honor Code standards approved by the Board of Trustees "at all times and . . . in all places" (Mosiah 18:9).

Honor Code Statement

We believe in being honest, true, chaste, benevolent, virtuous, and in doing good to all men. . . . If there is anything virtuous, lovely, or of good report or praiseworthy, we seek after these things (Thirteenth Article of Faith).

As a matter of personal commitment, faculty, administration, staff, and students of Brigham Young University, Brigham Young University—Hawaii, Brigham Young University—Idaho, and LDS Business College seek to demonstrate in daily living on and off campus those moral virtues encompassed in the gospel of Jesus Christ, and will

- Be honest
- Live a chaste and virtuous life
- Obey the law and all campus policies
- Use clean language
- Respect others
- Abstain from alcoholic beverages, tobacco, tea, coffee, and substance abuse
- Participate regularly in church services
- Observe the Dress and Grooming Standards
- Encourage others in their commitment to comply with the Honor Code

Specific policies embodied in the Honor Code include (1) the Academic Honesty Policy, (2) the Dress and Grooming Standards, (3) the Residential Living Standards, and (4) the Continuing Student Ecclesiastical Endorsement. (Refer to institutional policies for more detailed information.)

Academic Honesty Policy

The first injunction of the BYU Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. "President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p. 6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim.

BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct:

Plagiarism

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, whereas not in violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education, where all members of the university are expected to acknowledge the original intellectual work of others that is included in one's own work. In some cases, plagiarism may also involve violations of copyright law.

Intentional Plagiarism—Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote.

Inadvertent Plagiarism—Inadvertent plagiarism involves the inappropriate, but nondeliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply being insufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance.

Examples of plagiarism include:

Direct Plagiarism—The verbatim copying of an original source without acknowledging the source.

Paraphrased Plagiarism—The paraphrasing, without acknowledgment, of ideas from another that the reader might mistake for your own.

Plagiarism Mosaic—The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source.

Insufficient Acknowledgment—The partial or incomplete attribution of words, ideas, or data from an original source.

Plagiarism may occur with respect to unpublished as well as published material. Acts of copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Fabrication or Falsification

Fabrication or falsification is a form of dishonesty where a student invents or distorts the origin or content of information used as authority. Examples include:

1. Citing a source that does not exist.
2. Attributing to a source ideas and information that are not included in the source.
3. Citing a source for a proposition that it does not support.

4. Citing a source in a bibliography when the source was neither consulted nor cited in the body of the paper.
5. Intentionally distorting the meaning or applicability of data.
6. Inventing data or statistical results to support conclusions.

Cheating

Cheating is a form of dishonesty where a student attempts to give the appearance of a level of knowledge or skill that the student has not obtained. Examples include:

1. Copying from another person's work during an examination or while completing an assignment.
2. Allowing someone to copy from you during an examination or while completing an assignment.
3. Using unauthorized materials during an examination or while completing an assignment.
4. Collaborating on an examination or assignment without authorization.
5. Taking an examination or completing an assignment for another or permitting another to take an examination or to complete an assignment for you.

Other Academic Misconduct

Academic misconduct includes other academically dishonest, deceitful, or inappropriate acts that are intentionally committed. Examples of such acts include but are not limited to:

1. Inappropriately providing or receiving information or academic work so as to gain unfair advantage over others.
2. Planning with another to commit any act of academic dishonesty.
3. Attempting to gain an unfair academic advantage for oneself or another by bribery or by any act of offering, giving, receiving, or soliciting anything of value to another for such purpose.
4. Changing or altering grades or other official educational records.
5. Obtaining or providing to another an unadministered test or answers to an unadministered test.
6. Breaking and entering into a building or office for the purpose of obtaining an unauthorized test.
7. Continuing work on an examination or assignment after the allocated time has elapsed.
8. Submitting the same work for more than one class without disclosure and approval.

Procedures for Handling Incidents of Academic Dishonesty or Other Academic Misconduct

Faculty are responsible to establish and communicate to students their expectations of behavior with respect to academic honesty and the student's conduct in the course. Responsible instructors will investigate these incidents, determine the facts, and take appropriate action. Finally, the instructor should notify the Honor Code Office of the final disposition of the incident as a means of encouraging behavior change and discouraging repeat violations. If the incident of academic dishonesty involves the violation of a public law, e.g., breaking and entering into an office or stealing an examination, the act should also be reported to University Police. If an affected student disagrees with the determination or action and is unable to resolve the matter to the mutual satisfaction of the student and the instructor, the student may have the matter reviewed through the university's grievance process (Student Academic Grievance Procedure).

Applicable Actions

A wide range of possible actions exists for cases of academic dishonesty. Instructors should take actions that are fair and equitable under the circumstances and should attempt to reach an understanding with the affected student on the imposition of an appropriate action. In some cases, the department, the college, or the university may also take actions independent of the instructor. Examples of possible actions include but are not limited to the following:

For instructors, programs, departments, and colleges:

Reprimanding the student orally or in writing.

Requiring work affected by the academic dishonesty to be redone.

Administering a lower or failing grade on the affected assignment, test, or course.

Removing the student from the course.

Recommending probation, suspension, or dismissal.

For the university:

The university may elect to place an affected student on probation or to suspend or dismiss the student and to place a temporary or permanent notation on the student's permanent academic transcript that he or she was suspended or dismissed due to academic misconduct.

The university may report an incident of academic misconduct to appropriate law enforcement officials and may prosecute an affected student if the act in question involves the commission of a crime (e.g., breaking into an office or building, stealing an examination, etc.).

Honor Code Office Involvement

The Honor Code Office will maintain a record of all violations of the Academic Honesty Policy reported to it by the faculty. If the occurrence is sufficiently egregious or if a pattern of dishonesty or misconduct is discovered, the Honor Code Office may take additional action on behalf of the university based upon the nature of the infraction(s). The Honor Code Office, in consultation with the involved academic personnel, including the associate academic vice president in charge of undergraduate studies, may determine to place a student on probation or to recommend that a student be suspended or dismissed for academic dishonesty and other forms of academic misconduct.

Shared Responsibility Policy Statement

Students are responsible not only to adhere to the Honor Code requirement to be honest but also to assist other students in fulfilling their commitment to be honest.

Faculty Academic Integrity

The substantive standards of academic honesty stated in this policy apply *a fortiori* to faculty. Indeed, all members of the BYU community are expected to act according to the highest principles of academic integrity.

Sources

A large number of publications and policies of colleges and universities were reviewed in creating BYU's Academic Honesty Policy. Some of the content and structure of this policy were adapted from the following sources:

1. "Academic Honesty," a brochure produced by the Office of Judicial Affairs, University of Florida.
2. "Academic Honesty and Dishonesty," a brochure produced by the Office of the Dean of Students, University of Delaware.
3. "Academic Honesty and Dishonesty," a brochure produced by the Dean of Students Office, Louisiana State University.
4. "A Statement on Plagiarism," a committee report from the October 1994 Conference on the Center for Academic Integrity, Tom Langhorne, Binghamton University (chair).
5. "Definition of Plagiarism," by Harold C. Martin, taken from *The Logic and Rhetoric of Exposition*, by Harold C. Martin, Richard M. Ohmann, and James H. Wheatly, 3rd ed. (New York: Holt, Rinehart and Winston, 1969).

6. *Legal Aspects of Plagiarism*, by Ralph D. Mawdsley (Topeka, Kansas: National Organization on Legal Problems of Education, 1985).
7. "Plagiarism—The Do's and Don'ts," a brochure produced by the Office of Student Judicial Affairs of the University of California—Davis.

Dress and Grooming Standards

The dress and grooming of both men and women should always be modest, neat, and clean, consistent with the dignity adherent to representing The Church of Jesus Christ of Latter-day Saints and any of its institutions of higher education.

Modesty and cleanliness are important values that reflect personal dignity and integrity, through which students, staff, and faculty represent the principles and standards of the Church. Members of the BYU community commit themselves to observe the following standards, which reflect the direction of the Board of Trustees and the Church publication *For the Strength of Youth*. The Dress and Grooming Standards are as follows:

Men

A clean and well-cared-for appearance should be maintained. Clothing is inappropriate when it is sleeveless, revealing, or form fitting. Shorts must be knee-length or longer. Hairstyles should be clean and neat, avoiding extreme styles or colors, and trimmed above the collar, leaving the ear uncovered. Sideburns should not extend below the earlobe or onto the cheek. If worn, moustaches should be neatly trimmed and may not extend beyond or below the corners of the mouth. Men are expected to be clean-shaven; beards are not acceptable. Earrings and other body piercing are not acceptable. Shoes should be worn in all public campus areas.

Women

A clean and well-cared-for appearance should be maintained. Clothing is inappropriate when it is sleeveless, strapless, backless, or revealing; has slits above the knee; or is form fitting. Dresses, skirts, and shorts must be knee-length or longer. Hairstyles should be clean and neat, avoiding extremes in styles or colors. Excessive ear piercing (more than one per ear) and all other body piercing are not acceptable. Shoes should be worn in all public campus areas.

Residential Living Standards

As stated in the Honor Code, Brigham Young University is committed to providing a learning atmosphere consistent with the principles of the Church. The university is likewise committed to creating such an atmosphere for students residing on and off campus and between semesters. To achieve this, BYU has established living standards to help students learn some of the high ideals and principles of behavior expected at Brigham Young University. Therefore, the university requires students to adhere to the following applicable standards:

Visiting Hours

Deseret Towers and Helaman Halls

Visitors of the opposite sex are permitted in the lobbies but not in the bedroom area, except during an established open house or home evening time, at which times room doors must remain open. Lobby visiting hours begin after 8:00 a.m. and extend until 12:00 midnight, Monday through Thursday and Saturday. On Friday night, lobby visiting hours extend until 1:30 a.m. Sunday hours are from noon until midnight.

Heritage Halls

Visitors of the opposite sex are permitted in the lobbies and apartment kitchens but not in bedrooms or bathrooms. Lobby visiting hours are from 8:00 a.m. to 12:00 midnight daily, Sunday through Thursday, and extend until 1:30 a.m. on Fridays. Apartment visiting hours are from 10:00 a.m. to 11:00 p.m. Sunday through Thursday and extend until 12:00 midnight on Friday and Saturday.

Off-Campus Visiting Hours, Wyview Park and Foreign Language Student Residence

Visitors of the opposite sex are permitted in living rooms and kitchens but not in the bedrooms in off-campus living units. The use of the bathroom areas by members of the opposite sex is not appropriate unless emergency or civility dictates otherwise, and then only if the safety, privacy, and sensitivity of other residents are not jeopardized. Visiting hours may begin after 9:00 a.m. and extend until 12:00 midnight. Friday night visiting hours may extend until 1:30 a.m. Landlords may establish a shorter visiting period if proper notice is given to students.

Conduct

All students and residents shall be required to conduct themselves in a manner consistent with the BYU Honor Code, including abstaining from possessing, serving, or consuming alcoholic beverages, tobacco, tea, coffee, or harmful drugs. Involvement with gambling; pornographic, erotic, indecent, or offensive material; obscene or indecent conduct or expressions; disorderly or disruptive conduct; or any other conduct or action inconsistent with the BYU Honor Code is not permitted in student housing. All guests of students must comply with the Residential Living Standards while on the premises of university-approved housing. Students are expected to help their guests and other residents understand and fulfill their responsibility under the BYU Residential Living Standards and the BYU Honor Code.

Dress and Grooming Standards

All students and residents of university-approved housing are required to know the BYU dress and grooming standards and abide by them.

Maintaining the Standards

Violations of these standards may be reported to the Honor Code Office, 4440 WSC, (801) 422-2847, or the Off-Campus Housing Office, (801) 378-5066.

Continuing Student Ecclesiastical Endorsement

All enrolled continuing undergraduate, graduate, intern, and Study Abroad students are required to obtain a Continuing Student Ecclesiastical Endorsement for each new academic year. Students must have their endorsements completed, turned in, and processed by the Honor Code Office before they can register for fall semester or any semester thereafter. To avoid registration delays, endorsement should be submitted to the Honor Code Office by March 15. Those applying to BYU should use the new-student Admissions Application Part 3 endorsement.

LDS students may be endorsed only by the bishop of the ward (1) in which they live and (2) that holds their current Church membership record.

Non-LDS students are to be endorsed by (1) the local ecclesiastical leader if the student is an active member of the congregation, (2) the bishop of the LDS ward in which they currently reside, or (3) the nondenominational BYU chaplain.

Requirements

Whether on or off campus or between semesters, all students are expected to abide by the Honor Code, which includes (1) the Academic Honesty Policy, (2) the Dress and Grooming Standards, and (3) the applicable Residential Living Standards. Students are required to be in good Honor Code standing to graduate.

LDS students must fulfill their duty in The Church of Jesus Christ of Latter-day Saints, attend Church meetings, and abide by the rules and standards of the Church on and off campus.

Students who are not members of The Church of Jesus Christ of Latter-day Saints are also expected to maintain the same standards of conduct. They are encouraged to participate in services of their preferred religion. All students must be in good Honor Code standing to graduate, to receive a diploma, and to have the degree posted.

Withdrawn Ecclesiastical Endorsement

A student's endorsement may be withdrawn at any time if the ecclesiastical leader determines that the student is no longer eligible for the endorsement. If an endorsement is withdrawn, no confessional information is exchanged without authorization from the student. Students without endorsements, except in unusual circumstances, must discontinue enrollment. Excommunication, disfellowshipment, or disaffiliation from The Church of Jesus Christ of Latter-day Saints results in the withdrawal of the student's endorsement. The decision to withdraw an endorsement may be appealed through the appropriate ecclesiastical leaders. Questions regarding withdrawn endorsements and reviews/appeals should be directed to the Honor Code Office.

Admissions

Admissions Office
A-153 ASB
(801) 422-2507

All Applicants

General Admissions Policies: Brigham Young University, Brigham Young University–Idaho, Brigham Young University–Hawaii, and LDS Business College exist to provide an education consistent with the religious and family values taught by The Church of Jesus Christ of Latter-day Saints. We prefer to admit members of the Church in good standing but will not unlawfully discriminate against applicants based upon gender, race, creed, religion, national origin, age, or disability who meet the requirements; who agree to abide by the Honor Code and Dress and Grooming Standards; and who are otherwise qualified based upon available space.

An applicant who is currently excommunicated or disfellowshipped from, on probation with, or voluntarily disaffiliated from The Church of Jesus Christ of Latter-day Saints is generally inadmissable until reinstated to full fellowship. (Undergraduates who desire to appeal based on extenuating circumstances may obtain an application to be excepted from the implementing policy and procedures from the dean of Student Academic and Advisement Services, B-202 ASB.) Graduate applicants may obtain these from the dean of Graduate Studies, B-380 ASB.

The University Admissions Committee may grant special exceptions to the institution's normal entrance requirements. Individuals desiring to petition an exception should contact the Admissions Counseling Office at (801) 422-2500.

Important Notice: When admission applications reach the maximum number allowed by the BYU Board of Trustees (even if this occurs before the semester or term deadline date), the Admissions Office will only consider applications for the next possible semester or term.

"The Mission of Brigham Young University—founded, supported, and guided by The Church of Jesus Christ of Latter-day Saints—is to assist individuals in their quest for perfection and eternal life. That assistance should provide a period of intensive learning in a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued."

To this end, the university seeks qualified students of various talents and backgrounds, including geographic, educational, cultural, ethnic, and racial, who relate together in such a manner that they are "no more strangers and foreigners, but fellowcitizens with the saints, and of the household of God" (Ephesians 2:19). It is the university's judgment that providing educational opportunities for a mix of students who share gospel values based on the gospel of Jesus Christ and come from a variety of backgrounds and experiences is an important educational asset to BYU.

Social Security Number: Each applicant is requested to supply BYU with their social security number for identification purposes. The Admissions Office will assign an appropriate identification number to international students and any others not wishing to give their social security number. If students are applying for any kind of financial aid, however, the government will require the Admissions Office to collect their social security number. Numbers may be obtained at the nearest social security office or the local post office.

Full Disclosure: Failure to disclose and submit all documents required for admission, including transcripts from each institution in which the applicant has or is currently enrolled, or any falsification of information required for admission consideration may result in immediate suspension and loss of all credit earned at BYU.

Admissions Status and Academic Standing: Admissions status (admit or deny) and academic standing (good, warning, or probation) will be determined by the Admissions Committee. This review is for all applicants, including former BYU students.

Official Notice of Admissions Committee Action: Applicants will receive written notice of the official action taken by the Admissions Committee. (Oral communication does not constitute a valid offer of admission.) Admission can be granted only by the Admissions Office and not by any other BYU department. A letter of acceptance is valid only for the semester or term indicated. Students who wish to change the entry date specified in their letter of acceptance must request permission to do so from the Admissions Committee before the designated deadline for the entry date they desire.

Admission Deadlines: All materials must be received by the BYU Admissions Office on or before the deadline date for the semester or term in which the applicant intends to register. These dates are as follows:

Fall Semester
New freshman applicants: February 1
Transfer or former applicants: March 1

Winter Semester
All applicants: October 1

Spring Term
New freshman and all international applicants: February 1
Transfer or former applicants: March 1

Summer Term
New freshman applicants: February 1
Transfer or former applicants: March 1

International students are encouraged to submit application materials ***at least one month before the deadline dates listed.*** This will allow sufficient time for the preparation of visa documents.

Please note: The university president and the University Admissions Committee reserve the right to make exceptions to admission policy and guidelines as deemed appropriate.

New Freshman Applicants—U.S.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), seminary/institute recommendation (Part 4), high school information and official transcripts from each school attended (Part 5), and activities list and essays (Parts 6 and 7), are required of each applicant. Parts 1, 2, 6, and 7 of the application can be completed using the Internet. Parts 3, 4, and 5 can be downloaded off the Internet. The Web address is www.besmart.com.

Application Fee: A $30 one-time nonrefundable application fee must accompany all applications for admission. Checks or money orders should be made payable to CES Admissions (do not send cash through the mail).

High School Graduation: Applicants should be graduates of fully accredited high schools. Those who complete their secondary education through the General Education Development Test (GED), home study, home school, or other programs will be

reviewed individually by the Admissions Committee to determine admissibility. Additional information (achievement tests, personal interview, etc.) may be required as part of the application process.

High School Preparation: Students are encouraged to complete high school courses from the following list of college-preparation courses. Of particular importance are English and mathematics. Writing and math skills are basic for critical thinking. Students who perform well in these classes enhance their possibility of admission. In addition, those who complete Advanced Placement (AP) or International Baccalaureate (IB) courses will receive additional consideration in admission decisions.

Four years of English: composition, grammar, and courses that encourage "writing to learn."

Four years of mathematics (two or three years beyond algebra 1): geometry, intermediate algebra, precalculus, trigonometry, calculus.

Two years of laboratory science: chemistry, physics, biology, physiology, anatomy, genetics, botany, zoology.

Two years of history or government: U.S. history, U.S. constitution, U.S. government, Civil War, world history, medieval history, ancient history.

Two or more years of foreign language (advanced skill in one language is preferred).

Two years of literature or writing: Shakespeare, classics, mythology, American literature, creative writing.

Courses in computer science and the arts (music, drama, painting, etc.) can also be worthwhile. Students should be careful to take classes with substantial content that challenge them. In today's world typing and computer skills are valuable assets. These skills should be learned in high school or independently.

LDS Seminary: Students are encouraged to participate in LDS Seminary during each year of high school. Brigham Young University is committed to the concept that thoughtful and consistent study of the scriptures is vital to the preparation of those desiring to enter BYU. The number of years of LDS Seminary completed (released time, early morning, or home study) will receive additional consideration in admission decisions.

American College Test (ACT): All new freshman applicants and transfer students who have completed fewer than 30 semester (45 quarter) hours of college credit at the time of application are required to take the ACT. The ACT is administered nationally five times each year (October, December, February, April, and June). Students are encouraged to take the test during the last semester of their junior year in high school. The test should be taken early enough for the results to be in the Admissions Office before the deadline for the semester in which a student intends to enroll. Test results arrive at the university approximately four weeks after the test is given. Applicants must register for the ACT at least one month in advance of the test date. Registration materials can be obtained from most high school or college counseling offices or from the American College Testing Program, PO Box 414, Iowa City, IA 52243, (319) 337-1270 (www.act.org).

Other Considerations for Admission: The Admissions Committee also considers applicants with special talent, exceptional creativity, or other unusual preparation for university study not otherwise revealed in standard admission data. (In evaluating these criteria, the Admissions Committee relies on scholarship recommendations from a BYU department as a demonstration of the required talent, creativity, or unusual preparation.) The committee uses all application parts in making the evaluation and may also consider such matters as mission, military service, career choices, and personal circumstances.

Students who have completed college work prior to graduating from high school will be evaluated as "new freshmen" with regard to admission, scholarship, and registration, regardless of the number of college hours completed.

Early Admission

High school students who would like to be considered for full-time admission to Brigham Young University before high school graduation must:

1. Have a cumulative high school grade point average of 3.7 or higher on all work to date.
2. Achieve a composite ACT score of 27 or higher.
3. Submit a letter of unconditional recommendation for early admission from their high school counselor or principal. This letter must verify the student can no longer benefit from high school attendance since high school courses do not properly challenge and motivate the student. The counselor or principal must also state that the student is academically prepared and has the emotional and social maturity to benefit from attendance at BYU.
4. If under 18, submit a letter of unconditional recommendation for early admission from the applicant's parent or guardian.
5. Complete all application requirements (see application procedures for freshman applicants).

Application deadline dates for early admission are the same as for new freshman applicants.

Home School Applicants

Applicants who have been home schooled in lieu of attending a traditional high school environment must receive a composite ACT score of 27 or higher to be competitive for admission consideration. These individuals must also complete all other application requirements for freshman applicants.

Concurrent Enrollment at BYU

High school students who would like to be considered for admission to Brigham Young University as part-time students while still enrolled in high school must:

1. Have a cumulative high school grade point average of 3.7 or higher on all work to date.
2. Submit a BYU concurrent enrollment voucher signed by the applicant, the parent, and a high school counselor.
3. Have completed at least the junior year of high school.
4. Complete parts 1, 2, and 3 of the admission application.

Concurrent Credit Transfer Policy: Many students are now receiving enriched high school experiences by enrolling concurrently in college courses while completing their high school curricula. BYU will consider these students for freshman admission and scholarships provided the college work is completed prior to high school graduation. This means, for example, that they may receive consideration for BYU-sponsored Heritage Scholarships.

BYU will accept all college credit that appears on an official transcript from a college or university accredited by the regional accrediting commissions or the associations of schools and colleges that together cover institutions chartered and/or licensed in the United States and its possessions, regardless of when or where the work was taken.

Transfer Applicants—U.S.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), seminary/institute recommendation (Part 4) and an essay (Part 7) are required of each applicant. In addition, official transcripts from each college attended must be submitted. Faxed copies are not accepted. Parts 1, 2, and 7 of the application can be completed using the Internet. Parts 3 and 4 can be downloaded off the Internet. The Web address is www.besmart.com.

Students with fewer than 30 semester hours (45 quarter hours) of transfer credit at the time of application must also submit official high school transcripts (Part 5), an activities list (Part 6), and the results of the American College Test (ACT).

Students who have completed college work prior to graduating from high school will be evaluated as "new freshmen" with regard to admission, scholarship, and registration, regardless of the number of college hours completed.

Application Fee: A $30 one-time nonrefundable application fee must accompany all applications for admission. Checks or money orders should be made payable to CES Admissions (do not send cash through the mail).

Admissions Criteria: To be most competitive for admission, an applicant should earn a cumulative grade point average and a general education grade point average *above* the B+ range. In addition, the majority of the transfer course work should be general education subjects (English, math, history, science, etc.). It is recommended that students transfer before beginning their junior year of college. Additional consideration may be given to applicants with special talent, exceptional creativity, or other unusual preparation for university study not otherwise revealed in standard admissions data. In evaluating these criteria, the Admissions Committee relies on scholarship recommendations from a BYU department as a demonstration of the required talent, creativity, or unusual preparation. The Admissions Committee may also consider such matters as completing an LDS mission, attending an LDS institute of religion, military service, major selection, and personal circumstances.

Evaluation of Transfer College Credit: All college transcripts will be evaluated to determine admissibility of an applicant even if all or any of that credit is not accepted for transfer.

Factors that can affect the transfer of credit include:

1. The institution is accredited by one of the following regional associations or is an institution sponsored by The Church of Jesus Christ of Latter-day Saints.
   Middle States Association of Colleges and Schools
   New England Association of Colleges and Schools
   North Central Association of Colleges and Schools
   Northwest Association of Colleges and Schools
   Southern Association of Colleges and Schools
   Western Association of Colleges and Schools

   Credit from institutions that are candidates for accreditation by one of the associations will be reviewed on a case-by-case basis, but credit is generally not transferable.
2. Military courses are evaluated using the ACE recommendations in the upper-division baccalaureate category from the Guide to the Evaluation of Educational Experiences in the Armed Services.
3. Advanced Placement scores of 3, 4, or 5 and IB scores of 5, 6, or 7. Credit will be awarded according to BYU standards.
4. Students transferring to Brigham Young University after having earned an associate of arts and/or sciences degree at another college will, with one exception, have all of their lower-division general education requirements completed by the associate degree. The one exception is the American Heritage requirement, which can be filled by completing specific courses at the transfer college. The Advanced Written and Oral Communication and the Advanced Language/Mathematics requirements, which are considered to be upper-division requirements, may be filled by completing specific courses at other colleges. Students who have questions about the completion of general education courses are invited to contact the BYU Admissions Counseling Office, (801) 422-2500, for further information.
5. Credit earned more than eight years before admission or readmission (including transfer credit) will be accepted to meet general education and university graduation requirements, as well as major requirements at the discretion of the university. Courses should be applicable to BYU general education and university graduation requirements as well as to major requirements. Furthermore, transfer courses with grades below C– will not be used to fill BYU general education requirements and in most instances will not fill major requirements.

The BYU Admissions Office will determine the transferability of undergraduate credit to BYU. A written evaluation of transfer credits is mailed to each student by the Admissions Office soon after the student is accepted for admission. The evaluation indicates which classes have transferred and will fill general education and university graduation requirements as well as major requirements.

Former Student Applicants

Students who interrupt their studies without processing a deferment form with the BYU Admissions Office must reapply for admission.

Application: The biographical information (Parts 1 and 2) and ecclesiastical endorsement (Part 3) are required of each applicant.

Transcript: Official transcripts from each school attended since the student's last enrollment at BYU must be provided and identified. Students will be evaluated for readmission based on their post-BYU transfer GPA (must be 3.0 or higher) and their BYU academic standing.

Transfer classes will be evaluated on a course-by-course basis. The course must be substantially equivalent to a BYU course, with a grade of C– or higher, to apply toward appropriate university or major graduation requirements.

Clearance: All holds (i.e., financial, Honor Code) placed on the student's record by BYU must be cleared before the deadline for the application to be considered. Additionally, the student must reimburse BYU for any fees incurred to collect the student's past debts.

Note: International students must also provide proof of current finances.

Deferment

One Semester

BYU day students can interrupt their studies for one semester (fall or winter) by submitting a Continuing Student Enrollment and Scholarship Deferment Application. These forms are available at the BYU Admissions Office. Most fall/winter scholarships will be deferred to another semester or term(s) within the same academic year. Students planning to return to BYU in a different academic year must reapply for scholarships prior to established deadlines. Spring/Summer scholarships cannot be deferred.

LDS Missionary

Students wanting to serve an LDS mission can defer their admission status by submitting an LDS Mission Deferment form soon after the mission call has been received. Any unused portion of a university-awarded scholarship will also be deferred as long as all deferment requirements have been met.

Individuals who return home prior to completion of a full-term mission lose their admission and scholarship deferment and may not immediately be admissible to BYU. In most cases there will be a period of six months between the time an individual returns and the time to be eligible to apply for admission and scholarship consideration. This period of time is provided to give the individual sufficient opportunity, before returning to the rigors of academic life, to address the issues or concerns that were the cause of the early mission release.

Missionaries who come home early due to medical circumstances and who receive an honorable release can apply for readmission prior to the six months requirement by providing a letter of recommendation from the attending professional (doctor, psychiatrist, etc.) regarding the applicant's readiness for the rigors of academic life.

To reapply the student must complete Parts 1, 2, and 3 of the application for admission.

International Student Applicants

Admissions Considerations: Criteria used by the university Admissions Committee to evaluate international students' admission to Brigham Young University are:

1. Academic performance
2. Level of education completed
3. TOEFL test results
4. ACT or SAT test scores (needed if student has three or more years of high school in U.S. or Canada)
5. Ability to finance desired education

   Note: Students are advised to obtain copies of the affidavit and bank statements from the sponsor for personal records and visa application.
6. Ecclesiastical endorsement

In addition to the above, factors considered in granting admission to international transfer students are the grades or marks of all previous university and college work. If the applicant has less than one year's work at a university, secondary school marks will also be reviewed.

An entering freshman student must send official documents showing all secondary school marks and final diploma. An official English translation of the documents is also required.

Application: The biographical/entry selection information (Parts 1 and 2), ecclesiastical endorsement (Part 3), seminary/institute recommendation (Part 4), activities list and essays (Parts 6 and 7), financial information (Part 8), official transcripts, and financial information are required of each applicant. Parts 1, 2, 6, and 7 of the application can be completed using the Internet. Parts 3, 4, and 5 can be downloaded off the Internet. The Web address is www.besmart.com. TOEFL test results are required for nonnative English speakers, including U.S. citizens and permanent residents.

Application Fee: A $30 one-time nonrefundable application fee must accompany all applications for admission. This fee cannot be waived. Checks or money orders (U.S. funds drawn on U.S. banks) should be made payable to CES Admissions (do not send cash through the mail).

American College Test (ACT) or Scholastic Aptitude Test (SAT) Scores: The results of these tests must be sent as part of the application materials. Test information can be obtained by writing to:

American College Test Information
PO Box 414
Iowa City, IA USA 52243
(319) 337-1270

or

Scholastic Aptitude Test
Educational Testing Service
Princeton, NJ USA 08540
(212) 713-8000

English: All nonnative English-speaking applicants must send official results of the TOEFL exam to BYU. Applicants need to have a total (computer) TOEFL score of 173 or higher, with no section score below 17. Paper-based test scores require a total score of 500 or higher, with no section score below 50. Tests must be on official international test dates. Institutional tests are not acceptable.

Bilingual students who are admitted to BYU must take an English diagnostic examination during the orientation period. Based on the results of the test, a student may be required to register for one or more specific English courses, designed to improve areas of low proficiency.

Registration and Completion Requirements: All international students in attendance must register for and complete at least 12 hours of daytime credit per semester (6 hours per term).

Official University Visa Policy: Applicants entering the United States on a B visa are ineligible to attend Brigham Young University. Students should not attempt to enter the United States to attend BYU as a full-time student without presenting a Form I-20 from BYU (Certificate of Eligibility), a valid passport, and a valid F-1 visa. Maintaining visa status is the responsibility of the student.

Note: All international students must report to International Services, 1351 WSC, (801) 422-2695, within one week after arrival on campus.

Post-Baccalaureate Studies (PBS) Applicants

The Post-Baccalaureate Studies (PBS) Program is designed to assist an applicant on the path toward a graduate degree or professional certification. Applicants for PBS must have earned a baccalaureate degree.

Those interested in attending BYU as a post-baccalaureate student should have at least a 3.0 (B) grade point average; complete Parts 1, 2, and 3 of the undergraduate application; and attach a statement explaining their purpose in seeking enrollment and the courses to be taken.

Registration for courses will be on a space-available basis. Students may not attend for more than one academic year and must enroll for fewer than 12 hours per semester unless a waiver is granted by the University Admissions Committee.

Note: International students (unless permanent residents of the United States) cannot attend BYU as PBS students.

Second Degree (Second Major/ Additional Major)

Students who have already received a baccalaureate degree or higher from any institution, including BYU, are not eligible for admissions consideration to pursue another baccalaureate degree or major.

Spring/Summer Visiting Student Program

This program is open specifically to high school graduates who will be actively pursuing a degree at another college or university. Non-BYU students who want the opportunity to be part of the university's community on a limited basis will need to fill out an admission application. Admission and enrollment in the Spring/Summer Visiting Student Program does not in any way imply continued enrollment at BYU beyond summer term. Students wanting to pursue a degree at BYU must submit an application for undergraduate admission and meet the admissions criteria in effect at the time of application.

Applicants for the visiting student program should complete Parts 1, 2, and 3 of the undergraduate application, pay a $30 application fee (if not previously paid), and submit an ACT score and high school/college transcripts. Students who have completed 30 semester hours/45 quarter hours of college credit need only provide college transcripts. It is recommended that applicants have academics approaching an ACT score of 18 or higher and a GPA of 2.50 or higher.

Advanced Placement (AP) Credit

Students who complete a full year of an AP subject and score 3 or higher on the AP test will receive a minimum 6 semester hours of college credit in that subject. Students completing a half year of an AP subject with a score of 3 or higher on the AP test will receive a minimum 3 semester hours of credit in that subject. AP credit posted to another institution's transcript is reevaluated based on BYU's standard. Most AP subjects fill a BYU general education graduation requirement and in some instances fill graduation requirements in the major.

International Baccalaureate (IB) Credit

Students who complete the International Baccalaureate examinations may receive college credit. An IB course at the subsidiary level will normally be given 3 hours of general credit. An IB course completed at the higher level may receive 6 hours of general credit and possibly fill a general education requirement.

College Level Examination Program (CLEP) Credit

BYU stopped giving credit for general exams in 2000. At this time, BYU does not give credit for subject exams either. CLEP credit posted to another institution's transcript is reevaluated based on BYU's standard.

Tuition and Fees

Student Services
D-155 ASB
(801) 422-4104

Tuition Rates

Tuition rates and class fees for all academic programs are established annually by Brigham Young University's Board of Trustees. Tuition rates are based on graduate or undergraduate status, full- or part-time status, and membership in The Church of Jesus Christ of Latter-day Saints (Church). There are also separate rates for graduate students attending the J. Reuben Clark Law School and the Marriott School of Management.

BYU is owned and operated by the Church, and a significant portion of university operating costs are paid with the tithes of Church members. In recognition of this support, Church members are assessed lower tuition fees than those who are not members. This practice is similar in principle to that of state universities charging higher tuition to nonresidents. Students are considered members of the Church if they have been baptized at any time during the semester or term.

Tuition rates for the 2007–2008 academic year are as follows:

Per Semester (fall or winter)		Per Term (spring or summer)	
LDS	Non-LDS	LDS	Non-LDS
Undergraduate Students			
Full-Time			
$1,920	$3,840	$960	$1,920
Three-Quarter-Time			
$1,850	$3,715	$925	$1,858
Part-Time (per credit hour)			
$197	$394	$197	$394
Graduate Students (other than students in the Law School and Graduate School of Management)			
Full-Time			
$2,430	$4,860	$1,215	$2,430
Part-Time (per credit hour)			
$270	$540	$270	$540
Graduate School of Management and Law School Students			
Full-Time			
$4,350	$8,700	$2,175	$4,350
Part-Time (per credit hour)			
$483	$966	$483	$966

The university reserves the right to change tuition and fees without notice.

Noncredit and Audited Course Fees

Tuition for noncredit courses or for courses being audited is charged at the same rate as for credit courses. Noncredit and audit hours will be considered when determining part-time, three-quarter-time, or full-time status for tuition assessment purposes.

Student Status for Tuition Assessment Purposes

Graduate Status. Students (both degree-seeking and non-degree-seeking) who have received their bachelor's degree prior to the beginning of the semester or term for which they are registering. Note that the preceding tuition rate table does not apply to students of the J. Reuben Clark Law School and the Marriott School of Management. Separate tuition and fee schedules are available for these programs within the respective schools.

Full-Time Status. Undergraduate students registered for 12.0 or more credit hours per semester or 6.0 or more credit hours per term. For graduate students, full-time status is defined as registration for 8.5 or more credit hours per semester or 4.5 or more credit hours per term.

Three-Quarter-Time Status. Undergraduate students registered for 9.0 to 11.5 credit hours per semester or 4.5 to 5.5 credit hours per term. There is no three-quarter-time status for graduate students. Enrollment as a three-quarter-time student does not entitle the student to physical education suit and facility priveleges.

Part-Time Status. Undergraduate students registered for 0.5 to 8.5 credit hours per semester or 0.5 to 4.0 credit hours per term. For graduate students, part-time status is defined as registration for 0.5 to 8.0 credit hours per semester or 0.5 to 4.0 credit hours per term. Enrollment as a part-time undergraduate student does not entitle the student to health service, student activity privileges, or physical education suit and facility privileges.

Payment of Tuition and Fees

Tuition and fees are considered due and payable seven calendar days prior to the first day of class. Failure to pay by this date will result in holds being placed on the student's account, restricting the ability to add additional classes, unless the student has pending financial aid. Class registrations will be dropped if payment of tuition and fees is not received by midnight of the day following the add deadline. Classes will generally not be dropped if adequate financial aid is pending. However, it is the student's responsibility to ensure that financial aid or other forms of payment are available to satisfy tuition and fees prior to the deadline. Class registrations that are dropped for nonpayment will not be reinstated for payments received after the payment deadline.

Short-Term Loans

The university makes short-term loans available to assist students to meet the tuition payment deadline. These loans are intended to be used for short-duration financing needs. Short-term loans are due as follows:

Semester/Term	Due Date
Fall 2007	November 15, 2007
Winter 2008	March 15, 2008
Spring 2008	June 1, 2008
Summer	August 1, 2008

A $20 processing fee will be charged for each short-term loan. No interest is charged on those loans if they are paid by the due date. Short-term loans outstanding after the due date bear interest at the rate of 12 percent per annum. Holds on registration for future semesters or terms are placed on all student accounts the day the short-term loan is disbursed and are not released until the loan is paid in full. This may affect the ability of some students to take advantage of priority registration.

Pro-Rata Charges for Dropped Classes

Students may drop classes without penalty until the add deadline. After the add deadline, tuition will be recalculated based on the student's current enrollment status. A pro-rata tuition charge will be applied for dropped classes that result in a student moving from full-time to three-quarter time or three-quarter time to part-time or fewer hours within part-time status. The pro-rata charge applies to tuition and most class fees. Certain class fees relate to the delivery of required supplies or services and are not refundable. The pro-rata charges are as follows:

If class is dropped beginning:	The pro-rata charge will be:
Fall Semester	
September 18, 2007	15%
September 24, 2007	25%
October 29, 2007	50%
November 12, 2007	100%
Winter Semester	
January 22, 2008	15%
January 28, 2008	25%
February 3, 2008	50%
February 17, 2008	100%
Spring Term	
May 7, 2008	15%
May 12, 2008	25%
May 27, 2008	50%
June 2, 2008	100%
Summer Term	
July 1, 2008	15%
July 7, 2008	25%
July 21, 2008	50%
July 28, 2008	100%

The recalculation of tuition and fee charges may result in a refund. The amount of the refund a student will receive is based on the date the classes are dropped, or in the case of an official discontinuance, the date that the student reports such discontinuance to the Discontinuance Office (B-150 ASB).

Any refund due the student will be paid by check through the mail approximately ten days after the classes are dropped. If the student has elected direct deposit for student account refunds, the refund will be deposited into the student's bank. Payments originally paid by credit card will be returned to the credit card. Unpaid university charges may be deducted from the refund amount.

Refunds will not be paid to students whose tuition has been paid by a loan, scholarship, or benefit.

If a student with federal financial aid drops below half-time enrollment (undergraduate, 6 hours per semester or 3 hours per term; graduate, 4.5 hours per semester or 2.5 hours per term), the federal program or lender may require that a portion of the refund be returned.

A petition for exception to the refund schedule will be considered for students forced to discontinue because of circumstances that are beyond their control, such as death in the immediate family, life-threatening situations, medical incapacitation, a university error, or military leave. Students should not submit petitions based on ignorance of university policies and procedures. These will be denied. Petition forms are avialable in D-155 ASB.

Collection of Unpaid Tuition and Fees

BYU retains all legal remedies to collect unpaid tuition, fees, and other amounts due to the university for housing, traffic fines, etc. BYU uses a variety of methods to keep students informed of amounts due the university, including financial Web sites, statements, and various forms of correspondence. It is the student's responsibility to remain aware of obligations to the university and to make payment on a timely basis.

If BYU is unable to collect amounts due the university within a reasonable time, the debt may be referred to an outside collection agency and/or attorney for collection. All collection costs, including collection agency fees, attorney fees, and court costs will be charged to the student's account.

Failure to pay all amounts due BYU, including collection fees, may also result in various actions, including but not limited to withholding services and restricting the student's ability to register for class, participate in graduation, receive a transcript or diploma, or be considered for readmission to the university. The university also reserves the right to report both positive and negative payment histories to credit-reporting agencies.

Payments for Tuition and Fees

Tuition and fees include charges such as tuition, class fees, tuition reassessments, tuition late fees, Study Abroad fees, and health plan charges. Students are responsible to pay the correct amount of tuition, fees, and past due balances in U.S. dollars (checks must be drawn on a U.S. bank). A current billing statement is available on Route Y by clicking the My Financial Account link under the School heading. The following options are available for making tuition and fee payments. For more information on making payments to BYU, please visit http://payments.byu.edu.

Pay Tuition Online

BYU encourages you to take advantage of the fast, easy, and secure way to pay online. Payments may be made online by logging into Route Y and selecting the My Financial Account link under the School heading.

1. **eCheck** (BYU's preferred payment method)
   eCheck is a *free* electronic check option that uses a secure Web transmission to electronically deduct payments directly from a checking or savings account. The payer's bank routing and account numbers are required when making eCheck payments. Payments from mutual fund, money market, line of credit, or brokerage accounts cannot be accepted.
2. **Credit Card with a Service Fee**
   The university no longer accepts credit card payments for tuition and fees directly, but BYU has arranged for a third-party vendor to accept American Express, Discover, and MasterCard. The third party charges the payer a nonrefundable service fee equal to 2.75 percent of the transaction amount. This fee will be in addition to the tuition and fee charges. **Visa is not accepted** because its operating rules prevent participation in service fee programs of this type.

   Debit cards are considered credit cards for tuition and loan payment purposes and would therefore be subject to the same credit card restrictions and service charges. Because eChecks and debit cards both deduct payments directly from a checking or savings account, students can avoid the service charge by choosing the eCheck option.

   Note the Credit Card Refund Policy: Existing credit card regulations prohibit BYU from making a refund to you in cash or check when you make a payment by credit card and there is an adjustment made to the charges paid. When you pay by credit card and there is a reduction in the amount of your charges, we are required to refund the amount back to the credit card you used to make the payment. The third-party vendor will not refund any portion of the service fee even though a refund has been made to the credit card.

Pay Tuition by Mail

Check or money order payments may be mailed to Student Financial Services, A-153 ASB, Provo, UT 84602. Please make checks payable to Brigham Young University or BYU. Do not mail cash. Include with your check the student's BYU ID number and the amount to apply to each category. You may print a statement and remittance slip by logging into Route Y, selecting My Financial Account, and then clicking the Print a Statement button; however this is not required to make payment.

Pay Tuition in Person

Payments may be made throughout the year in person at D-155 ASB. However, during the first two weeks of each semester or term, only limited services are available at this location. Full cashiering services during these periods are available at OneStop Student Services in the Wilkinson Student Center. Tuition may be paid using check, money order, or cash. **Credit cards and the Signature Card cannot be used to pay tuition or fees at BYU cashiering locations** (see Pay Tuition Online above for acceptable use of credit cards). Check or money order payments may also be left in the drop boxes at OneStop Student Services in the Wilkinson Center or D wing on the main floor of the ASB.

Pay Tuition by Telephone

eCheck payments may be made over the telephone by calling (801) 422-4104. Credit card payments for tuition cannot be made over the telephone. Credit card payments for tuition can only be made online through the third-party vendor.

Pay Tuition Through Western Union

This option is probably most advantageous for international payments. Using cash rather than credit card as the payment method will greatly reduce the amount of Western Union fees.

Follow these instructions to make a tuition payment using Western Union Quick Collect:

1. Go to a Western Union agent location. To find a location, call toll-free 1-800-325-6000, press 2, 1; or go to the Web site at http://www.westernunion.com
2. Complete the blue Quick Collect form. You will need the following information to complete the form:
   - Pay to: Brigham Young University
   - Code city: BrighamYoung (case sensitive and no spaces)
   - State: UT
   - Account number: (nine-digit BYU student ID)
3. Provide payment to Western Union
   - Payment amount includes amount owed to BYU plus Quick Collect fee (between $11 and $15 U.S.)
   - $5,000 U.S. limit for each cash transaction
4. Receive the receipt with the ten-digit money transfer control number (MTCN). This number can be used to track your Quick Collect payment. Notification of cash payment is sent within a few minutes.

Pay Tuition by Wire Transfer

To pay tuition using an international or domestic wire transfer, please contact us for wire transfer instructions via phone at (801) 422-4104 or via e-mail at wiretransfer@byu.edu.

University Fees

Class Fees

Army ROTC Leadership Laboratory	$ 40
Ec En 224	11
ExSc 116, 117 (bowling)	45
†ExSc 150, 151, 152, 153 (payable to skating rink)	variable
*ExSc 161, 162, 164 (skiing)	35
†ExSc 175, 176, 177 (scuba diving)	variable
**Geol 410	550
***Geol 490R, 590R	variable
HFL 110, 210, 340	50
HFL 287, 397	30
I Sys 100, 101	25
Math 97	75
Mil S 120, 121, 220, 221, 320, 321, 325R, 420, 421	40
Music 160R, 260R, 359R, 360R, 460R, 560R, 660R	360
PAS 112	90
RMYL 189	100
†RMYL 427	variable

*Student must also have equipment and purchase lift passes.
**See department for a refund application.
***See department for a fee card.
†See department for amount.

Class fee refunds are based on the same schedule as listed for tuition refunds. Those with asterisks (*) are exceptions to this schedule and must be requested at the respective academic department.

Materials/Service Fees

The following courses charge fees based on materials consumed or services provided. Contact the individual department or professor to determine the appropriate payment procedure.

CM 105, 155, 210.
EC En 212, 301.
IT 101, 104A,B, 344, 347, 443, 447.
TTE 200, 209, 229, 450, 490R, 593R.
TMA 285, 475R.
VA 133.
VAStu 104, 105, 106, 204R, 205, 206R, 216, 217, 218, 219, 350, 351, 355R, 356R, 358, 359, 456R, 459R, 656R, 659R.

Student Teaching/Practicum Fees

Fingerprint Fee

Students in teacher education must be fingerprinted and pass a background check prior to starting practicum experiences with K–12 students. Fees for fingerprinting and background checks are set by the Utah State Office of Education and are listed on the Education Advisement Center Web site: education.byu.edu/eac.

Licensure Fee

Students who meet all program requirements qualify for a Level 1 teaching license in Utah. Fees for licensure are due with the student teaching application. Licensure fees are are set by the Utah State Office of Education and are listed on the Office of Field Services Web site: http://education.byu.edu/fieldservices.

Miscellaneous Fees and Fines

Admission evaluation fee (nonrefundable)	$ 30
Bicycle registration (Provo City license)	1
Change of registration fee—per class (after add deadline)	10
Dishonored check charge	20
Examination, special equivalency	10–20
NDFS-dietetics insurance and ADA dues	48
Graduation (undergraduate) fee (nonrefundable)	15
Identification photo for replacement ID card (no charge for first replacement)	10
Incomplete grade contract fee per class (to a maximum of $30)	10
National League of Nursing Diagnostic Exam	40
Physical education locker	5
Traffic violation fines, variable according to violation	5–300
Transcript fee (pay at Records Office)	2

Health Insurance Requirement

BYU requires all three-quarter- and full-time students (9 credit hours or more for a semester; 4.5 credit hours for a term) to carry adequate medical insurance. This applies the entire time a student has continuing status, including students taking a semester or term off. All participants in groups on tour, Study Abroad, or internships are required to carry adequate medical insurance.

Enrollment in the BYU Student Health Plan satisfies the university's insurance requirement, as does enrollment in a group medical plan provided by an employer or a spouse's or parent's employer. We recommend that any other medical insurance plan should:

- provide at least 70 percent coverage for all major medical expenses, including physician, hospital, and ancillary services;

- have an individual annual deductible of no more than $500; and
- have an annual plan limit of no less than $25,000.

Three-quarter- or full-time students must enroll in the BYU Student Health Plan or provide verification of other adequate insurance coverage when first enrolling at BYU and prior to the beginning of fall semester each year thereafter. Students who do not return a properly completed waiver form via the Web to the BYU Student Health Plan Office prior to the last day to add/drop will be automatically enrolled in and assessed the appropriate premium (single or married student rate) for the BYU Student Health Plan.

The BYU Student Health Plan is an annual plan but is billed and must be paid each semester/term. The health plan fee is due the first day of class each semester or term. Following fall semester, students who will not be attending BYU for one or more semesters or terms (except as described above) are eligible to remain on the BYU Student Health Plan but must continue to pay the health plan fee on a timely basis. Following fall semester, students who will no longer be attending BYU may also opt out of participation in the health plan. If you choose to not remain on the student health plan, you must submit in writing such decision to the BYU Student Health Plan Office by the due date of the plan fee.

For the latest BYU Student Health Plan fees, check the Web site at http://saas.byu.edu/tuition/healthins.aspx.

Appeals

Students with unusual circumstances may appeal for special consideration of any item in this section to the Student Services Office. Appeal forms may be obtained at the Student Services windows at D-155 ASB.

Scholarships and Financial Aid

Financial Aid and Scholarships Office
A-41 ASB
(801) 422-4104

Over the past decade the cost of obtaining an excellent university education has increased considerably. As a result, many students and their families have found it difficult to obtain the funds to pursue an education. The university is sensitive to this situation and to those students who are hard-pressed to finance their studies. Major changes have been made by the university to improve the delivery system through which students can receive financial aid. There is a firm commitment to assist those who truly need the resources to further their studies.

Financial aid at BYU comes from various federal, state, and university programs in the form of loans, scholarships, and grants. The Financial Aid and Scholarships Office coordinates these financial aid programs and assists students in identifying the financial resources for which they might qualify. Because the number of students applying for financial assistance usually exceeds the funds available through university and federal programs, the distribution of financial aid at BYU is based on an assessment of the student and family's financial need. There are some exceptions to need-based awarding, e.g., BYU academic scholarships, performance and talent and athletic awards, and BYU short-term loans.

The process of determining a student's eligibility for financial aid is called *need analysis*. In a need analysis, income and asset information from both students and parents is examined to determine the family's ability to contribute toward educational costs. This figure, called the *estimated family contribution*, is subtracted from what it will cost the student to attend BYU for a specific length of time (typically, one academic year). If the cost of education is more than the family can contribute, the student has demonstrated *financial need*.

BYU uses the government need analysis form, the Free Application for Federal Student Aid (FAFSA), in determining how much the student and family should contribute. All students applying for financial aid must complete this form. The application process is not complete until the results of the FAFSA have been received by the Financial Aid and Scholarships Office.

Even though a standard formula is used to analyze a student's financial situation, the Financial Aid and Scholarships Office carefully considers the individual circumstances of each student applying for aid.

Applying for financial aid can be complicated and time consuming. Considerable delays and frustrations can arise from filling out forms incorrectly or failing to submit the proper documents in a timely manner. Students and their parents are encouraged to read instructions carefully and to complete all forms and documents correctly. Professional counselors are available and eager to assist in answering questions and helping with the application process.

Eligibility Requirements

Applicants for federal financial aid (Federal Pell Grants, Federal Stafford Loans, and Federal PLUS Loans) must be U.S. citizens or eligible noncitizens. In addition, students must maintain satisfactory academic progress to have federal financial aid disbursed to them. Any student enrolled in a degree-seeking program may apply for financial aid.

Students who have a baccalaureate degree and are returning to receive a teaching certificate may also apply for Federal Stafford Loans if they have a cumulative 2.0 GPA and are admitted to the teacher licensure program.

Rules and regulations governing the disbursement of federal financial aid are subject to change. Contact the Financial Aid and Scholarships Office if you have additional questions regarding your eligibility for financial assistance.

Scholarships

Brigham Young University offers scholarships to select students who have demonstrated a serious and diligent commitment to spiritual preparation and academic excellence as an investment in their education. Scholarship funds are provided through the tithes of the LDS Church and the offerings of generous individuals. They are given to encourage continued commitment to spiritual and intellectual growth. The gift of a scholarship assumes an obligation on the part of the recipient to use that investment to prepare for expanded and purposeful service in the Lord's kingdom. The principle of replenishment is endorsed, and all are invited to make a similar investment in someone else's future by contributing to the university's scholarship programs when in a financial position to do so.

Although the contributions of the Church and others have been generous, funds are still insufficient to invest in all students. Consequently, policies and procedures have been established to better ensure fairness in awarding available scholarship funds consistent with the university's aims and donors' wishes. For additional information about our policies and procedures, please contact the Financial Aid and Scholarships Office, A-41 ASB, Provo, UT 84602-1009; telephone (801) 422-4104; e-mail: scholarships@byu.edu; Web: http://scholarships.byu.edu

Academic

The majority of BYU scholarships are awarded to students based on academic merit. After the scholarship application deadline, students are ranked within their college by their academic preparation and performance. Beginning at the top of the ranked order, scholarships are awarded until funds are exhausted.

BYU scholarships are not renewable, and most are awarded for two semesters only. Unless students receive a four-year award, *they must reapply every year by the appropriate deadline to be considered.* Applicants must also officially declare a major by the end of their sophomore year.

Gordon B. Hinckley Presidential Scholarships are the most prestigious awards offered by Brigham Young University to incoming LDS freshman students. Named after the President of The Church of Jesus Christ of Latter-day Saints, this scholarship pays each recipient's tuition and an additional stipend for eight semesters of undergraduate work at Brigham Young University.

To be considered for this scholarship, students must have academic credentials in the multiyear scholarship range of the freshman matrix, accessible from http://matrix.byu.edu. Students will be required to submit a separate application, available online, by February 1, 2008.

Heritage Scholarships are eight-semester, full LDS tuition awards to incoming freshman students. These scholarships honor the intellectual, spiritual, and cultural heritage of the Church and the university.

National Merit Scholarships are eight-semester, full LDS tuition awards sponsored by BYU for a number of the incoming freshman students who qualify as finalists in this competition. To

be considered, finalists must inform National Merit Corporation that BYU is their first-choice university. National Merit Corporation will then forward necessary materials to BYU. *Because funds are limited, finalists are not guaranteed a BYU-sponsored National Merit Scholarship.* Students must be in the multiyear scholarship range on the freshman matrix to be selected.

Brigham Young Scholarships are generally two-semester awards that cover either half or full LDS tuition. Students must reapply each year to be considered for future scholarships.

New Freshman Students

New freshman academic scholarships are based on candidates' unweighted high school GPAs and composite ACT/SAT scores, as calculated and certified by the BYU Admissions Office.

New Transfer Students

Academic scholarships are evaluated according to academic performance at the previous institution(s). Generally, candidates must have a GPA of 3.85 or higher to be considered. Those transferring to BYU with fewer than 30 semester hours (45 quarter hours) of college credit will also be evaluated on their high school credentials.

Former Students

Academic scholarships are based on overall academic performance. Primary considerations include BYU and total grade point average and the number of hours completed per enrollment. Candidates will be considered in the same applicant pool as continuing students.

Continuing Students

Academic scholarships are based on overall scholastic performance. Primary considerations include BYU and total grade point average and the number of hours completed per enrollment.

- Fall/Winter

The Scholarship Committee will consider the GPA earned at BYU through winter semester and course loads during previous enrollments. Generally, only full-time students are eligible. To qualify for an academic scholarship, both the BYU GPA and the cumulative GPA, including any transfer work, must be within the awarding range.

- Spring/Summer

The committee will consider academic performance through fall semester.

Alumni Association

Generations of BYU students have benefited from the generous support of the Church and private individuals. With that support they have received a first-rate education that has helped them "go forth to serve." Part of that service includes providing for the education of future generations.

The Alumni Replenishment Grants consider not only need and eligibility in its applicants but also a moral commitment to repay the amount of the grant, so that future students can receive and continue such financial assistance.

Alumni Association Replenishment

The Alumni Association Replenishment Grant is available to junior, senior, and graduate students whose total costs of education may not be met through other financial aid programs. Scholarships are awarded annually in amounts equal to half or full LDS tuition. The scholarship recipients will be eligible for membership in the Society of Alumni Scholars and will be asked to replenish the fund once they are in a financial position to do so.

To be considered, both the cumulative and BYU GPA must be at least 3.0 by the end of winter semester. Applicants must also demonstrate financial need and be willing to replenish the scholarship fund at a later date. To apply, complete the online scholarship application on Route Y, including the Alumni Replenishment Grants section.

Alumni Association Regional Replenishment

Several regional chapters of the BYU Alumni Association offer scholarships to students whose permanent residence lies within their boundaries.

To apply, complete the online scholarship application on Route Y, including the Alumni Regional Replenishment Grants section.

Athletic

The university awards grants-in-aid to outstanding athletes who qualify under the rules and regulations of the Mountain West Conference and the National Collegiate Athletics Association (NCAA).

For program applications, deadlines, and additional information, apply directly to the coach of the sport in which you wish to participate or contact Intercollegiate Athletics, 331 SAB, Provo, UT 84602, (801) 422-2046, e-mail: athletics@byu.edu.

College and Departmental

In addition to the scholarship programs described in this bulletin, other private scholarships are available through the colleges and some departments. Students should check with their college or department for additional information and applications.

International

The university offers a limited number of grants each year to international undergraduate students who demonstrate unusual financial need. Eligible candidates must have an F-1 visa, have earned 24 credit hours at BYU, and be in good academic standing.

Generous friends of the university have established a few additional scholarships to assist international students with their studies. To apply, complete the online comprehensive scholarship application on Route Y.

International Study Programs

The International Study Programs Office offers scholarships and grants to assist undergraduate students participating in its programs.

Study Abroad

- The *Mae Covey Gardner Scholarship* is available to students going on programs to European countries.
- The *Howard B. and Mary D. Nelson Scholarship* is available to students studying French, Italian, or Spanish and attending Study Abroad in France, Italy, or Spain. This scholarship is not available to returned missionaries who served in the destination country.
- The *Study Abroad Scholarship* is available to students participating in programs centered outside Europe.
- The *International Study Program Scholarship* is awarded to qualified students receiving university credit for field research or internships in an overseas setting.
- The *Service and Learning Scholarship* is available to students who enroll in an ISP program that has a strong service component.

All applicants must have a minimum 3.0 GPA. Applicants must show financial need by having a current *Free Application for Federal Student Aid (FAFSA)* on file at the Financial Aid and Scholarships Office, A-41 ASB, telephone (801) 422-4104. The Internet URL is www.fafsa.ed.gov. Students must complete the scholarship essay page of the ISP application and submit it with the rest of the application by the appropriate application deadline. For program applications, deadlines, and additional information, contact International Study Programs, 204 HRCB, Provo, UT 84602-4540; telephone (801) 422-3686; or visit our Web site at http://kennedy.byu.edu/isp/.

Jerusalem Center

The Jerusalem Center for Near Eastern Studies offers financial aid to undergraduate and graduate students participating in the

various Jerusalem Center study programs. This financial aid is administered under the following categories:

Grants are awarded primarily on the basis of financial need. These grants will vary according to the length of the program, the applicant's financial need, and the funds available.

Scholarships are awarded primarily on the basis of academic performance and will vary as stated above. A minimum GPA of 3.60 is required to be considered.

For program applications, deadlines, and additional information, contact the Jerusalem Center Office, 301 HCEB, Provo, UT 84602-1524, telephone (801) 422-6017, e-mail: deborah_peterson@byu.edu.

Need-Based

While the majority of its scholarships are merit-based, BYU budgets a limited number of need-based awards for United States citizens and permanent residents. Each applicant's circumstances and resources are reviewed and evaluated; unfortunately, there is always more need than available funding. Interested students must complete the *Free Application for Federal Student Aid (FAFSA)* and the comprehensive scholarship application on Route Y.

Other Private

Generous friends of the university have contributed a number of private scholarships. Many of these scholarships carry specific stipulations and restrictions. To be considered for these scholarships, complete the online scholarship appliction on Route Y, including the Additional Opportunities section.

Research

The following scholarships promote and reward research:

The Undergraduate Scholarship Awards are given to a select number of students, generally juniors and seniors, in good academic standing to fund research projects. To obtain the application instructions and guidelines, deadlines, and additional information, contact the Office of Research and Creative Activities, A-285 ASB, Provo, UT 84602-1231, telephone (801) 422-3841.

Students should also contact their department and college to learn about other research opportunities and awards.

ROTC

Both the Army ROTC and the Air Force ROTC offer competitive scholarships to qualified students enrolling in their programs. ROTC scholarship recipients may receive full tuition, fees, books, and associated costs. In addition, both scholarship and nonscholarship students enrolled in courses numbered in the 300- and 400-series may apply for a $100 monthly subsistence allowance. For further information and application requirements, contact the Military Science Department (Army ROTC), 320 Wells ROTC Building, Provo, UT 84602-8301, telephone (801) 422-3601, e-mail: armyrotc@byu.edu; or the Aerospace Studies Department (Air Force ROTC), 380 Wells ROTC Building, Provo, UT 84602-8301, telephone (801) 422-2671, e-mail: afrotc@byu.edu.

Students with Disabilities

Generous donors have established a few private scholarships to assist students with disabilities. Because funds are limited, the Undergraduate Scholarship Committee will consider the nature of the applicant's disability and its impact on his or her ability to function in class and earn a living. Academic performance and financial need will also be considered. Interested students must complete the comprehensive scholarship application on Route Y, the *Free Application for Federal Student Aid (FAFSA)*, and submit appropriate current documentation of the disabling condition from a licensed professional to the University Accessibility Center, 1520 WSC, Provo, UT 84602, (801) 422-2767 v/tty.

Talent Awards

BYU offers talent awards in the areas of communications, dance, music, theatre and media arts, and visual arts. For these awards, demonstrated talent is a more important criterion than scholastic achievement. Awards range in value from $100 to full tuition and fees for one year. For further information and application materials, contact the appropriate department directly:

Communications: Department of Communications, 360 BRMB, Provo, UT 84602-6403, (801) 422-2997, e-mail: commsec@byugate.byu.edu.

Dance: Department of Dance, 294 RB, Provo, UT 84602-2005, (801) 422-5086, e-mail: dance@byu.edu.

Music: School of Music, C-550 HFAC, Provo, UT 84602-6410, (801) 422-4784, e-mail: music@byu.edu.

Theatre and Media Arts: Department of Theatre and Media Arts, D-581 HFAC, Provo, UT 84602-6405, (801) 422-6645, e-mail: tmasec@byugate.byu.edu.

Visual Arts: Department of Visual Arts, E-509 HFAC, Provo, UT 84602-2500, (801) 422-4266, e-mail: design@byu.edu.

General University Scholarship Policies

Students granted university scholarships must do the following to remain eligible for their award:

1. Abide by the Honor Code and adhere to the dress and grooming standards of BYU.
2. Scholarships may be applied to approved International Study Programs and Travel Study programs but may not be used for Independent Study or Continuing Education courses or for BYU–Idaho or BYU–Hawaii courses.
3. Register as a full-time student and complete a minimum of 14 credit hours per the semester(s) or 6 credit hours per the term(s) of the award.

   Courses repeated within the same academic year will count only once toward the hour requirement.

   Credit must be earned within the classroom. Credit earned through special examination or Independent Study and audited classes may not be used to meet the requirement.

Additional provision:

Undergraduate students who have acquired more than 160 hours of credit or who have received scholarships for a total of eight semesters, excluding spring and summer terms, are ineligible for future scholarships.

Discontinuance

A student claims a scholarship by registering for classes and using the scholarship to pay tuition. If the student then does not attend school or, once enrolled, discontinues for nonemergency reasons, the scholarship will be cancelled and the student will be billed for the appropriate tuition and discontinuance fees. Students who need to discontinue because of illness, injury, or extenuating circumstances should contact the Financial Aid and Scholarships Office as well as the Discontinuance Office for appropriate action.

Note: Exceptions to these policies may sometimes be granted according to individual needs and circumstances. Students wanting an exception must submit a formal written petition to the Financial Aid and Scholarships Office prior to the necessary change.

BYU Short-Term Loan

A short-term loan is available to full- or part-time day students or full-time evening students admitted to day school. A student may borrow up to the cost of tuition only, and because the loan is "short-term" the loan must be repaid during the same semester or term in which the money is borrowed. The loan is not available for Independent Study, job interviewing, or debt payments.

Federal Programs

Federal Pell Grant

A Federal Pell Grant is awarded by the U.S. Department of Education and is based on financial need. A Pell Grant is not a loan and does not have to be repaid. Only undergraduate students who haven't already earned a bachelor's degree are eligible for a Pell Grant. (Students who pay graduate tuition are not eligible.) In addition, students must meet other eligibility requirements (see preceding Eligibility Requirements). Federal Pell Grants are based on an eligibility index determined by a federal formula. Pell Grant payments are disbursed to BYU students one semester at a time and vary with the number of hours for which a student is enrolled per semester (spring and summer terms combined are considered one semester).

- 12.0 or more semester hours equal a full-time payment.
- 9.0–11.5 semester hours equal a three-quarter-time payment.
- 6.0–8.5 semester hours equal a half-time payment.
- Fewer than 6.0 semester hours equal a less-than-half-time payment.

In determining hours for Federal Pell Grant payments, please note that:

1. Audit hours, special courses and conferences, and hours obtained by challenging classes may not be used.
2. Continuing Education, Salt Lake Center, Study Abroad, and Travel Study classes, etc., may be used only during the term or semester for which the student is admitted to BYU day school.

ACG and SMART Grants

Academic Competitiveness Grants (ACGs) are available to U.S. citizens, enrolled full-time in their first or second academic year of study, who are Federal Pell Grant recipients and have completed a "rigorous secondary school program of study." Second-year ACG recipients must have at least a 3.0 cumulative GPA. Applicants for the ACG must document how they have completed a "rigorous secondary school program of study."

National Science and Math Access to Retain Talent (SMART) Grants are available to U.S. citizens, enrolled full-time in their third or fourth academic year of study, who are Federal Pell Grant recipients, have at least a 3.0 cumulative GPA (checked every enrollment), and are majoring in physical, life, or computer science; engineering; mathematics; technology; or critical foreign languages. Eligible students will be notified by the Financial Aid and Scholarships Office.

Federal Subsidized Stafford Loan

A subsidized Federal Stafford Loan is a low-interest, federally subsidized loan based on financial need. It is available to undergraduate and graduate students who meet the eligibility requirements (see preceding Eligibility Requirements) and the federal government requirements for need as calculated by the FAFSA. Subsidized Stafford Loan recipients must be enrolled in at least 6 credit hours per semester (or 3 credit hours per term) during the entire period of their loan. No audit hours, Independent Study hours, nor Conferences and Workshop hours may be used to meet the minimum hour requirement.

To avoid the burden of excessive debt, students should consider other forms of financial aid such as grants, scholarships, awards, part-time employment, and family assistance. Students should also contact their state educational agency to apply for state grants and other state aid that may be available. High school counselors and employers may also provide information regarding sources of financial aid. An unsubsidized Stafford Loan is also available to students who do not qualify for a fully subsidized Stafford Loan. Contact the Financial Aid and Scholarships Office for details.

Federal Parent Loan for Undergraduate Students (PLUS)

A Federal PLUS Loan is an educational loan that parents may obtain to meet the educational expenses of their dependent children who meet the eligibility requirements above and are enrolled in at least 6 credit hours per semester (or 3 credit hours per term) during the entire loan period.

A PLUS Loan is neither need based nor federally subsidized. It requires credit approval by the lender. PLUS Loans are disbursed to the school by check made copayable to the parent and the school. Monthly payments generally begin sixty days after the loan is disbursed.

Federal Unsubsidized Stafford Loan

An unsubsidized Federal Stafford Loan is an educational loan that students may obtain to meet their educational expenses. To be considered for an unsubsidized Stafford Loan, students must meet the eligibility requirements and be enrolled in at least 6 credit hours per semester (or 3 credit hours per term) for the entire loan period.

Although the unsubsidized Stafford Loan is neither need based nor federally subsidized, a student must first complete the FAFSA to determine eligibility for a Federal Pell Grant or subsidized Federal Stafford Loan. Payments generally begin sixty days after the loan is disbursed. A student may receive an unsubsidized Stafford Loan in addition to a subsidized Stafford Loan.

Satisfactory Academic Progress

Federal regulations require schools to establish, publish, and apply reasonable standards for determining whether a student receiving financial aid is maintaining satisfactory academic progress in his or her course of study. Two separate standards for measuring satisfactory academic progress are required: one is based on academic grades and the other is based on rate of progress toward a degree. In keeping with these regulations, Brigham Young University has established and will apply the following policies governing satisfactory academic progress for financial aid.

Evaluation Measures

Newly admitted students (both entering freshmen and transfer students) are eligible for financial aid during their first academic year at BYU. At the end of the first academic year, and at the end of each semester thereafter, the status of all students will be evaluated to determine if they are making satisfactory academic progress in each of these areas.

1. **Academic Standing:** Students on academic probation are ineligible for federal financial aid.
2. **Rate of Progress:** Students who fail to successfully complete at least 70 percent of their courses are ineligible for financial aid. For purposes of this policy, the following are "nonprogress" grades: E, I, IE, NS, W, and WE. Repeated courses are also considered nonprogress.

   Students not meeting the 70 percent completion rate will remain ineligible for federal financial aid until they:
   a. Improve their completion rate to 70 percent, or
   b. Successfully complete 12 hours (with no nonprogress grades) during regular terms or semesters at BYU, through Independent Study, or at another college or university.

Generally, undergraduate students with over 180 attempted credit hours are ineligible for financial aid. Similarly, students who have more than 60 hours of nonprogress grades (E, I, IE, NS, W, WE) are ineligible for financial aid.

Petitions for Overrides

Students may petition to receive aid for current or future semesters or terms within the same academic year. Generally, students may petition to receive aid if there were special or

unusual circumstances that prevented them from making satisfactory academic progress. Possible reasons for a petition might be an accident or injury, medical or family emergency, or another similar circumstance.

Students requesting an override of the 180-hour limit must file a copy of an approved graduation plan with their petition.

Important Tax Information

Under the Tax Reform Act of 1986, only scholarship, fellowship, benefit, and grant amounts used for tuition, fees, books, supplies, and equipment required for courses of instruction are excluded from the recipient's gross income. Any of these funds used for other expenses, such as room and board, must be included in income. If funds are received from any of these sources, a detailed record should be kept of all expenditures for tuition, fees, books, and required equipment and supplies. For more detailed information, consult a personal tax advisor.

Exception to University Financial Aid Policy

Students desiring an exception to University Financial Aid Policy must petition the Financial Aid Committee, stating the reason for the requested exception. The committee meets on a regular basis to review petitions. Contact the Financial Aid and Scholarships Office, A-41 ASB, (801) 422-4104.

Additional Information Regarding Financial Aid

Students with questions regarding financial aid at Brigham Young University are invited to visit the Web site: http://saas.byu.edu/depts/finaid.

Estimated College Expenses

On entering the university, students are responsible for making arrangements to cover enrollment expenses and should have sufficient funds on hand for at least the first semester. University financial aid is available to supplement savings only through one or more of the following programs: scholarships and awards, student loans, Pell Grants, and student employment.

For estimated costs, please see the Financial Aid Web site: http://saas.byu.edu/depts/finaid/costs.aspx.

Housing

Campus Accommodations Office
100 SASB
Phone: (801) 422-2611
Toll-free: (877) 403-0040
Fax: (801) 422-0837
E-mail: housing@byu.edu
Internet: http://www.byu.edu/oncampushousing/

Quality residential living is an important, indeed an integral, part of the total educational experience at BYU, and students should carefully consider the accommodations available in view of the type of living experience they desire, the time they have available for activities within their housing situation, and their economic needs. Housing is available on campus and in the surrounding communities, and programs have been established within campus residence halls and with off-campus landlords to integrate living experiences with the total university educational program.

On-Campus Housing

On-campus housing includes room-and-board residence halls and apartment-style living for men and women—each directed by a competent hall advisor—and family apartments. Assisting the hall advisor in room-and-board areas and the apartment-style living are several resident assistants—mature, advanced students who reside with the student group. Students are known personally by the staff and have someone available to assist with normal student problems.

The residence hall program is designed to provide experiences in self-government, sharing relationships, and other responsibilities that encourage maturity and independence.

All residents have access to CougarNet, which provides them with an e-mail address, Internet access, printing capabilities on campus network printers, file storage, and access to the library (BYLINE) and registration (AIM) databases.

Residence Halls for Men and Women

Board and room in **Helaman Halls** is provided for both men and women. Each hall contains student lounges; study rooms; common shower and restroom areas; and laundry and storage facilities. A reading and writing lab, as well as math and computer lab, are also provided in the central building and are staffed by teaching assistants. The central building features a spacious cafeteria, dining room, reception area, offices, and mail service for the entire residence area. Recreational facilities include a swimming pool, sports courts, and large lawn areas.

Apartment Living for Men and Women

Heritage Halls and **Wyview Park** provide apartment-style housing for both men and women. Apartments are furnished, except for bedding and kitchen items.

Most Heritage Halls apartments have a combination kitchen-dining-study room, three bedrooms (designed for two people each), and a bathroom. Each building has a large lobby/living area, recreation room, laundry, and storage facilities. The Heritage Halls Central Building includes a resource center, staffed with specialists who are available to provide information and equipment for residents, and a computer lab, staffed by Office of Information Technology (OIT) teaching assistants.

Wyview Park apartments have a kitchen and dining room, living room, two or three bedrooms, and a bathroom. Two-bedroom apartments have one private bedroom and one shared bedroom. Three-bedroom apartments have two private bedrooms and one shared bedroom.

Residences for Families

Accommodations for student families are provided at **Wymount Terrace.** Each apartment is furnished with an electric or gas range, refrigerator, garbage disposal, and blinds. A limited assortment of furniture can be rented from the Student Family Housing Office. Residents have access to sports courts, children's playgrounds, large lawn areas, and the Helaman Halls swimming pool.

These apartments do not have washer/dryer hookups, but the areas have self-service laundry facilities. A BYU Creamery outlet is located at Wymount Terrace. The Housing Office also has a computer lab available.

Wymount Terrace has 898 one-, two-, or three-bedroom apartments and is located on the northeast side of campus.

Foreign Language Student Residence

The College of Humanities sponsors the Foreign Language Student Residence, located near the Missionary Training Center. Students pledge to speak only the foreign language in their apartment while they live and study together under the supervision of a faculty advisor and a native speaker.

All rooms are double rooms, and male and female students eat together, with the cost of some meals included in the fees. For details contact the coordinator of Foreign Language Student Residence at 3086C JFSB or (801) 422-7797.

Applications/Agreements for On-Campus Housing

Students who plan to enroll at BYU and live in a university residence hall or a student family housing complex are advised to request housing at least one year in advance. For single-student housing, a housing agreement may be submitted online at http://www.byu.edu/oncampushousing/. A nonrefundable $50 processing fee and a $100 security deposit are required after the housing agreement is submitted and the student has been admitted to the university. The application fee is nonrefundable unless the student is denied admission to the university or campus housing. The *security deposit* is refundable (1) if the student is not admitted to the university or campus housing, (2) if cancellation is received before the deadline shown on the agreement, or (3) at the end of the agreement if there is no debt owed the university.

Agreements are processed according to the date they are received by the Campus Accommodations Office. Students should be prepared to live by the terms of the agreement once they have acquainted themselves with its terms and submitted it; this will avoid any possible misunderstanding or financial loss. Agreements are made for the academic school year.

For student family housing, the completed application must be submitted with a nonrefundable $25 application fee. Placement into on-campus housing is made according to the date the application or agreement is received by the Campus Accommodations Office.

Acceptance to the University: Validation of any campus housing reservation is contingent on the student's official acceptance and admission to the university.

Time of Arrival: Residence halls are not open to students before the announced opening date, which is usually the day before Orientation begins. The university does not advise students who are going to live on campus to arrive before that date.

Off-Campus Housing

2170 WSC
(801) 422-5066
Internet: http://www.byu.edu/offcampushousing

Brigham Young University is committed to creating an atmosphere conducive to intellectual and spiritual development for all of its students, including those who live off campus. The BYU Off-Campus Housing Office was established to assist in this task by:

1. Aiding students in locating off-campus housing.
2. Encouraging landlords to maintain and improve rental facilities.
3. Advising and giving counsel to students and landlords in their relationships with one another.
4. Attempting to ensure that BYU living standards are maintained off campus.

To help achieve these ends, single undergraduate BYU students are required to live in university-contracted housing (see below). At present, more than 22,000 rental spaces have been contracted by the university for single undergraduate students living off campus. For further information concerning off-campus rentals and BYU regulations, contact the Off-Campus Housing Office between 8:00 a.m. and 5:00 p.m. Monday through Friday or visit their Web site.

BYU Housing Referral Service

The BYU Off-Campus Housing Office maintains a complete referral service for all university-contracted rental facilities. Thousands of rental units of all types are available, including large apartment complexes, condominiums, duplexes, houses, basement apartments, and sleeping rooms. Some housing for families is also listed, although student family housing is not subject to university contracting.

Detailed lists of current vacancies are available at the Off-Campus Housing Office from 8 a.m. to 5 p.m. Monday through Friday. Listings are also available at our Web site (listed above). A guide with housing tips and essential rental data on the large apartment complexes will be mailed on request and may also be found at our Web site. Officials are also available to help students who have problems finding suitable off-campus housing.

University-Contracted Housing

All BYU students are required to provide the local address where they reside (not a post office box) as part of the registration process. Unless specifically excused by the Off-Campus Housing Office, all single undergraduate BYU students are required to live in university-contracted housing either on or off campus. The requirement may be waived by the Off-Campus Housing Office for the following students:

1. Single parents with children.
2. Single students living with parents.
3. Single students who are taking classes away from Provo.
4. Under certain conditions, as determined by the Off-Campus Housing Office, the university housing requirement may be waived for other students who have a special circumstance or hardship.

Hotels, motels, and studio apartments are not approved housing for single students. A studio apartment is a living unit that does not provide a separate bedroom but combines the living and sleeping area.

Students who do not provide their local address or who live in housing not approved by the university and who are not excused by the BYU Off-Campus Housing Office are subject to the following sanctions:

1. Fines may be incurred, future registration may be stopped, and activity card privileges may be withheld until the student verifies that he or she is living in or will be living in university-contracted housing.
2. Students falsifying their addresses will be subject to the above consequences as well as disciplinary action by the university for Honor Code violations.

When a student signs an agreement to live in a facility not contracted by the university and has not been excused from the university housing requirement, these sanctions will be applied even though the student's tenancy extends beyond the current semester or term in which the student is enrolled. A student in this situation will have to either move from the uncontracted housing unit, regardless of the consequences, or forego registration and other privileges at the university until complying with this policy.

The university contracts off-campus living units whose owners have agreed to:

1. Adequately separate single men and women.
2. Exercise reasonable efforts to maintain the BYU Residential Living Standards.
3. Maintain the facilities in good repair.
4. Not abuse basic tenant rights.

The university cannot guarantee that owners and managers are employing their best efforts to maintain our standards, that all residents are complying with BYU standards, or that contracted living units always meet our physical criteria. Thus, students are individually responsible to carefully choose an acceptable apartment and compatible roommates. Students should first inform their area management if they suspect that the standards and the physical criteria are not being maintained. Students may also contact the BYU Off-Campus Housing Office and/or the BYU Honor Code Office with concerns.

Because a student's living environment has a profound influence on academic performance and spiritual growth, BYU promotes an environment in contracted off-campus housing facilities that is consistent with its mission and with the moral virtues taught by The Church of Jesus Christ of Latter-day Saints. Specifically, the BYU off-campus housing program *sets guidelines* for landlords and students, which, if followed, will cultivate that desired moral climate. BYU off-campus housing personnel attempt to rectify any deviations from these standards and policy guidelines.

Chartered Housing

Chartered housing, begun in fall 2006, is a pilot program that will run until 2009. Working closely with the property managers of designated housing providers, the university will assist with staff training and study BYU students' experiences in this style of housing. In order to compare chartered housing with other styles, all residents will be BYU students.

For more information about the chartered housing pilot program, please see the Web site: http://www.byu.edu/housing/chartered_housing.html.

Registration

Registration Office
B-130 ASB
(801) 422-2824

Who May Register?

Students are eligible to register if they are either continuing BYU students or new students who have received a letter of acceptance from the Admissions Office for the semester they wish to attend.

Continuing student status ends if a student does not complete day school classes the previous full semester (fall or winter) or if a student has graduated from BYU. Students who have lost continuing student status must be readmitted by the Admissions Office (D-155 ASB) before registration materials will be processed.

An individual who has disaffiliated from The Church of Jesus Christ of Latter-day Saints or has been excommunicated or disfellowshipped is not eligible for enrollment at Brigham Young University until he or she is once again in good standing in the Church. If a current student disaffiliates or is excommunicated or disfellowshipped from the Church, the Continuing Ecclesiastical Endorsement is always immediately withdrawn, and the student is discontinued. Every student must have a current Continuing Ecclesiastical Endorsement for continued enrollment.

The Registration Process

Complete registration instructions and deadlines are listed in the current class schedule for each semester or term.

Registration is based on a priority system (fall and winter semesters only) that allows students to begin registration according to their class standing or number of completed hours. Priority begins with graduate students and seniors, then juniors, sophomores, and freshmen. Post-baccalaureate non-degree-seeking graduates will be given access after continuing freshmen. Newly admitted freshmen will register together in a separate priority.

All eligible students will receive a registration notice for fall and winter semesters that will inform students of their beginning registration times. Following the instructions in the current class schedule, students may begin registering for fall semester in April and for winter semester in October.

Spring and summer term registration is not based on a priority system. Schedules become available sometime in December, and eligible students can register for spring and summer terms beginning in February. Students have continuous access to the registration system. However, once school begins some classes must be added with an instructor's signature.

Adding and Dropping Classes

Students may use the Web registration system to add and drop classes until the add deadline. Each academic department determines how classes are added. The add method of each class is noted in either the current class schedule or on the Web registration system with an **O** (Web registration is open through add deadline), **S** (department or faculty signature required always), **or F** (Web registration system until classes start—instructor signature thereafter).

To add a class that requires a signature:

1. Obtain a change of registration (add/drop) card from the Registration Office, a college advisement center, or a department.
2. Obtain a signature of approval from the instructor or department as shown in the current class schedule.
3. Take the add card to the Registration Office at OneStop during the first ten school days of a semester (first six days of a term).
4. For classes not officially added before the add deadline, students may petition for exception through the Petitions Office (B-150 ASB) and pay a $10 fee per class.

To drop a class once school begins:

Use the AIM registration system during the add period (first **ten** class days of a semester or first **six** days of a term). Drop cards are also accepted at OneStop.

Note: A student can be registered for more than one section of an R-suffix course and therefore must drop each unwanted section.

To withdraw from a class:

1. During the withdraw period (eleventh through twenty-fifth day of a semester, seventh through thirteenth day of a term) students may use the AIM registration system to withdraw from classes. A $10 fee per class will be charged to the student's account and a W will be posted on the student's transcript.
2. To withdraw from classes for extenuating circumstances after the withdraw deadline, students may petition for exception through the Petitions Office (B-150 ASB) and pay a $10 fee per class.

Full-, Three-Quarter-, or Part-Time Status

A student who registers for 12 or more credit hours a semester or 6 or more credit hours a term is full-time for tuition purposes. Registration for 9 to 11.5 credit hours per semester or 4.5 to 5.5 credit hours per term is deemed three-quarter-time for tuition purposes. Registration for 0.5 to 8.5 credit hours a semester (0.5 to 4 credit hours a term) gives the student part-time status. International students and students receiving financial assistance may be required to register for more hours to be considered full-time.

Verification of Full-Time Status for Graduate Students

Graduate students (master's and doctoral students) who are enrolled for at least 2 credit hours per semester and who can be certified by their department as being engaged full-time in pursuit of their degrees can petition for graduate full-time status. Requests for such an exception should be directed to the Office of Graduate Studies (B-356 ASB).

Withdrawal from Classes

Students who choose to withdraw from a class must do so officially. Students who do not officially withdraw before the

published deadline will receive a failing grade. Refer to the current class schedule for the appropriate procedure and deadlines and fees.

Auditing Classes

Students who wish to audit a class (take a course without receiving any credit for it) must add the class, listing it as an audit course, on an add/drop card within the first ten class days of a semester or the first six class days of a term. Audited classes do not appear on transcripts and do not count for verification purposes. *Students must be officially enrolled either for credit or audit to be eligible to attend class.*

Class Preparation Time

The expectation for undergraduate courses is three hours of work per week per credit hour for the average student who is appropriately prepared; much more time may be required to achieve excellence. These three hours may include one hour of lecture plus two hours of work outside class, three hours in a laboratory with little outside work, or any other combination appropriate to a particular course.

Maximum Hours per Semester/Term

An undergraduate student in good standing may register for as many as 18 credit hours in any one semester (9 per term) by following the regular registration procedure. Once school begins the college advisement center may authorize a student who has demonstrated superior academic ability to register for a maxiumum of 21 hours per semester (11 per term). Registering for classes through Continuing Education or auditing classes constitutes a part of the total registration. Through a petition process after the first day of school, exceptions to these rules may be granted by the university registrar (B-150 ASB). Students registering in the Semester Away program through Evening Classes may register for up to 12 credit hours in a semester (6 per term), of which 9 credit hours (5 per term) may be Independent Study courses.

Final Examinations

The university schedules reading and examination periods. An examination period occurs at the end of each semester and term. The examination period is preceded by reading days, which give time for conscientious review, study, and synthesis of the semester's work. The reading and the examination periods are firmly scheduled parts of the semester; students must not make plans that interfere with these important academic activities. Students may not take final examinations early. If illness or other uncontrollable circumstances prevent a student from taking an examination at the scheduled time, that student is responsible to inform the class instructor as soon as possible.

The instructor may give the grade *Incomplete* for nonacademic extenuating circumstances occurring after the discontinuance deadline. The incomplete cannot be given unless the student and instructor together prepare a contractual agreement (see Grading and Records section of this catalog for further information.) In cases where a student has conflicting examinations or more than three examinations in one day, individual arrangement for alternative test times may be made by the instructor.

Registration Holds

The university may place a hold on a student's records that will block registration privileges. The hold will be indicated on the registration system. It is the student's responsibility to contact the appropriate office to clear any holds before attempting to register for classes.

Academic standards:
Academic Support Office (801) 422-2723

Ecclesiastical endorsement:
Honor Code Office (801) 422-2847

Financial status (prior balance):
Student Accounts (801) 422-4104

Graduate school:
Office of Graduate Studies (801) 422-4091

Loans:
Collections Office (801) 422-7648
Financial Aid and Scholarships Office (801) 422-4104

Advisement centers (CAC holds):
Biology and Agriculture (801) 422-3042
Education (801) 422-3426
Engineering and Technology (801) 422-4325
Family, Home, and Social Sciences (801) 422-3541
Fine Arts and Communications (801) 422-3537
Health and Human Performance (801) 422-3638
Humanities (801) 422-4789
International and Area Studies (801) 422-3548
Marriott School of Management (801) 422-4285
Nursing (801) 422-4173
Physical and Mathematical Sciences (801) 422-6270
University (801) 422-3826

Academic Standards

Academic Support Office, 2500 WSC, (801) 422-2723

Academic standing is determined by the grades that a student earns at **BYU.**

As of summer term 2003, a minimum of 6 graded credits are used to compute a student's academic standing.

ACADEMIC STANDING	UNDER THESE CONDITIONS	EXPECTATIONS
GOOD	When the most recent semester/term GPA and BYU cumulative GPA are 2.0 or above and the student has NOT been on academic Probation or Suspension	The student continues to maintain a 2.0 or higher semester/term and BYU cumulative GPA.
PREVIOUS	The same as Good academic standing but indicates a student has previously been on academic Probation or Suspension.	The student continues to maintain a 2.0 or higher semester/term and BYU cumulative GPA. However, the student goes directly to academic Probation if the student has a semester/term GPA below 2.0.
WARNING **Includes** a registration block.	When the most recent semester/term GPA is below 2.0 and the student was in Good academic standing OR When the most recent semester/term GPA is 2.0 or higher but the BYU cumulative GPA is below 2.0 and the student was on academic Warning.	The student is blocked from registrations beyond the subsequent semester/term until the student **EITHER** submits a complete Academic Improvement Plan to the Academic Support Office by the appropriate deadline **OR** the student earns at least a 2.0 GPA for the subsequent enrollment and has at least a 2.0 cumulative GPA. Students with less than a 2.0 cumulative GPA must submit the Academic Improvement Plan.
PROBATION **Includes** a registration block.	When the most recent semester/term GPA is below 2.0 and the student was on academic Warning OR When the most recent semester/term GPA is below 2.0 and the student was in Previous academic standing OR When the most recent semester/term GPA is 2.0 or higher but the BYU cumulative GPA is below 2.0 and the student was on academic Probation.	The student is blocked from registrations beyond the subsequent semester/term until the student **EITHER** submits a complete Academic Improvement Plan to the Academic Support Office by the appropriate deadline **OR** the student earns at least a 2.0 GPA for the subsequent enrollment and has at least a 2.0 cumulative GPA. Students with less than a 2.0 cumulative GPA must submit the Academic Improvement Plan. Students on Probation who earn less than a 2.0 GPA for a semester or term are academically suspended. **Note:** If a student is receiving university or federal financial aid, the student must also contact the Financial Aid and Scholarships Office, A-41 ASB, (801) 422-4104. Students on Probation may not be eligible for financial aid.
SUSPENSION	When the most recent semester/term GPA is below 2.0 and the student was on academic Probation OR When a student fails to comply with the conditions prescribed by the Academic Standards Committee.	1. The student is immediately dropped from all enrollments in day, evening, or extension classes (except Independent Study). 2. The student may not enroll in BYU day, evening, or extension classes (except Independent Study) for a minimum of twelve months. During this time the student is expected to resolve all problems leading to the student's academic suspension. After twelve or more months, the student may apply for readmission. If the student completes any college-level work while on Suspension, the student must receive an overall GPA of 3.0 or higher in that course work to be allowed readmission. The student should contact the Admissions Office, A-153 ASB, (801) 422-2507, for details and pertinent information about deadlines and expectations for readmission. 3. A student with extenuating circumstances—who has appropriate support and justification—may appeal the twelve-month period out of BYU through the Academic Standards Committee. The student should contact the Academic Support Office, 2500 WSC, (801) 422-2723, for assistance. No other appeals will be considered.
DISMISSAL	When the student is academically Suspended a second time.	An academically dismissed student may not enroll in day, evening, or extension classes (except Independent Study). After three years a student is eligible to enroll in evening or extension classes. A student may seek an exception to be readmitted as a degree-seeking student after two years by petitioning the Academic Standards Committee.

Note: College advisement centers (CACs) may also set registration blocks on students not progressing toward timely graduation. In such cases, students must also meet with their CAC to have this block removed.

Grading and Records

Grading

Grade point averages are computed by assigning numeric values to the letter grades:

Letter Grade Values

A	4.0	C	2.0
A–	3.7	C–	1.7
B+	3.4	D+	1.4
B	3.0	D	1.0
B–	2.7	D–	0.7
C+	2.4	E, I, IE, WE	0.0

The grade given in a course is the teacher's evaluation of the student's performance, achievement, and understanding in that subject as covered in the class. The following adjectives indicate the meaning of the letter grades:

A	Excellent
B	Good
C	Satisfactory
D	Minimum passing
E	Failure

Hence, the grade **A** means that the student's performance, achievement, and understanding were excellent in the portion of the subject covered in the class.

There are prerequisites that qualify students to be admitted to the more advanced classes offered by a department. A senior has added experience, understanding, and preparation and, consequently, progresses in courses that would have been impossible when the student was a freshman. The level of performance, achievement, and understanding required to qualify for each grade that carries credit (any grade other than E, I, IE, or WE) is higher in a more advanced class than in those classes that precede it, and the student is prepared to work at this higher level.

Additional grade designations are as follows:

1. If a student withdraws officially from a class during the first ten class days of a semester or the first six class days of a term, the permanent record will not show a registration for that class. If the student properly withdraws from a class between the eleventh and twenty-fifth class days of a semester or between the seventh and thirteenth class days of a term, the record will be marked **W** (official withdrawal).
2. A **WE** grade will be given if a student petitions to withdraw from a class after the deadline and he or she is failing the class at that time.
3. A grade of **P** indicates a passing grade. It has no effect on the GPA.
4. The letter grade **I** (Incomplete) is given on a contractual basis with the instructor to students who are unable to complete the work in the prescribed period of time. An incomplete grade may be given for nonacademic extenuating circumstances (serious illness, personal injury, death in the immediate family, etc.) that may arise *after* the discontinuance deadline (the twelth week of a semester or the sixth week of a term). To be eligible for an incomplete, the student must have attended up until the discontinuance deadline and be passing the class. If extenuating circumstances arise before the twelfth week of a semester or the sixth week of a term, the student should discontinue or petition through the Registration Office to be officially withdrawn from the class(es). The Incomplete Grade Contract must be completed and signed by the instructor and the $10 fee paid before submission of the official grade roll at the end of the semester. A copy of the Incomplete Grade Contract must be submitted to the Records Office by the grade submission deadline. A grade of E will be posted until a valid Incomplete Grade Contract is submitted to the Records Office.

   Class attendance in a subsequent semester or reregistration is not permitted to make up the incomplete. In some special instances, such as a lab class, attendance may be required for the portion of the class or lab section missed. Once the work has been completed, the instructor should complete the portion of the Incomplete Grade Contract, showing the grade earned, and submit the form to the Records Office (B-150 ASB).

   The instructor may designate the specific length of time the student has to complete the course requirements (not to exceed one year). If the work is not completed and the new grade submitted by the instructor within the agreed upon deadline, the I grade will be changed to an IE (the IE grade is considered and calculated as a failing grade). (To extend the contract date within the one-year deadline contact the Records Office, B-150 ASB.)
5. A grade of **T** indicates course work in progress and is only used in certain approved courses in which work may extend beyond the semester. The T grade may be changed to A, B, C, D, E, or P, depending on the grade rule for the course, when the work is completed.
6. The grade **NS** is placed on the student record when a grade roll has not been submitted to the Records Office by the grade submission deadline. After the deadline, individual Grade Change Authorization forms must be used to submit a new grade to change the NS grade. The NS will not be considered in calculating the grade point average.

Grade Changes

After the final grade submission deadline, grades may be changed only for the following reasons:

- making a calculating error in computing the grade
- posting the wrong grade to the grade roll
- changing a T grade after the course work is completed
- posting a grade if no grade was submitted
- reevaluation of the previous grade with no additional work submitted

When such corrections need to be made, an official Grade Change Authorization Form must be completed and sent directly to the Records Office.

If a student completes any additional work beyond the end of the semester or term (original T grades excluded), grade changes should not be made. Instead, the student should request to have an Incomplete Grade Contract.

A previous grade cannot be changed to a W (official withdrawal). If the student had a nonacademic emergency, he or she should file a petition for withdrawal with the Registrar's Office.

Numeric Grade Values (Law School)

In fall semester 1987 the Law School was granted permission to grade their courses on the numeric grading system. In fall semester 1994 the Law School was granted permission to change the numeric grading system to a new numeric scale. All current

Law School students with previously earned numeric grades had their grades converted to the new numeric scale:

1987–1994	Description	Fall 1994
80–90	Superior	3.7–4.0
75–79	Excellent	3.3–3.6
71–74	High pass	3.0–3.2
66–70	Pass	2.7–2.9
59–65	Low pass	2.2–2.6
50–58	Fail	1.6–2.1

Student Academic Grievance Policy

There may be occasions when a student believes her/his academic work or conduct has been unfairly or inadequately evaluated[1] by the faculty.[2] Usually such differences of opinion can be amicably resolved informally between the student and teacher. If not, the following procedures are intended to encourage satisfactory resolution of academic grievances with a minimum of formal procedure.

1. The grievance must be initiated by the student no later than four months (120 days) from the last day of the examination period of the semester in which the alleged unfair or inadequate evaluation occurred. A grievance related to restrictions limiting participation in university academic programs must be initiated within 30 days of the decision in question.
2. The student should initially address the grievance in writing to the faculty member or administrator responsible, requesting review and resolution. If the faculty member or administrator is unavailable or the student has a valid reason to believe the matter will not be dealt with fairly or that retribution may result, the student may submit the grievance directly to the applicable department chair. (The faculty member, administrator, or department chair shall have the right to consult others regarding the matter as reasonably necessary and with due regard for the student's right to privacy under the Family Educational Rights and Privacy Act.)
3. If the grievance is addressed to the faculty member, and it is not resolved satisfactorily, the student may submit a written request for further review to the department chair within 30 days of the faculty member's decision.
4. The department chair's decision shall be given in writing to both the student and the faculty member within 30 days after receiving the student's request and all supporting material for review.
5. If the matter is still unresolved, the student may submit a written request for formal review to the dean or director of the applicable college or school within 30 days of the department chair's written decision.
6. If formal review is requested, the applicable dean or director shall be assisted in reviewing the grievance by a committee, as described in the following paragraphs.
   - 6.1 The dean or director will appoint several individuals associated with the university to serve as an ad hoc review panel. At least two of these individuals must be faculty with continuing faculty status from outside the area of study in which the grievance arose. One of these faculty members will be appointed to chair and conduct the proceedings, which should take place within 30 days after receiving the student's written request and all supporting materials. Faculty appointed to a panel reviewing a graduate student's grievance must have graduate faculty status.
   - 6.2 In reviewing the grievance, the review panel, the affected student, and the affected faculty member are responsible to identify or provide relevant sources of information. The review is intended to be collegial and not adversarial. Accordingly, legal counsel is not allowed to attend nor advocate in the review process. Presentation of the issues should be concise and relevant. The chair of the review panel shall be responsible to conduct the review and establish applicable procedures if such are not available from the dean or director. Any formal presentation should be limited to pertinent issues and panel members allowed sufficient time for questions. Following presentation and discussion of the grievance, the review panel will deliberate in closed session and submit its written recommendation to the dean or director.
   - 6.3 The dean or director will determine the resolution of the grievance and give the decision in writing to the student and faculty member within 10 days of receipt of the review panel's recommendation. This decision is final and not subject to further appeal, unless it involves termination of a graduate program or termination from the university.
   - 6.4 If the matter involves termination of a graduate program and is not resolved to the graduate student's satisfaction, the student may submit a written request for review to the Dean of Graduate Studies. The written request for review should contain an outline of the grievance and its disposition and set forth facts supporting the student's request for review. The request for review must be made within 30 days of the date of the written decision by the college dean. The Dean of Graduate Studies will convene a formal administrative review of relevant matters that have not been resolved at the department or college level. Following the review, the Dean of Graduate Studies will make the final determination.
   - 6.5 If the matter involves termination of an undergraduate student from the university for academic reasons or revocation of a degree, the student may submit a written request for review to the Academic Vice President. The written request for review must contain an outline of the grievance, its prior disposition, and set forth facts supporting the student's request for review. The request for review must be made within 30 days of the date of the written decision by the dean or director. The Academic Vice President may either make a decision on the matter or delegate the review to an associate AVP who will convene an ad hoc review panel to study the issues and prepare a written recommendation for the Academic Vice President. A written decision by the Academic Vice President will be sent to the student within 30 days of receipt of the written recommendation of the panel, unless an extension is necessary and all parties are notified of the extension in writing.

Notes

1. Academic evaluations which are subject to this policy include grading, restrictions limiting participation in university academic programs, dismissal from the university or a university program for academic reasons, actions arising from incidents of academic dishonesty, the withholding and/or revocation of a diploma for academic reasons, and the withholding of or special notation on transcripts for academic reasons. Evaluations relating to admissions to the university, ecclesiastical endorsements, discipline administered by the Honor Code Office, or petitions are not covered by this policy. Persons who believe they have been unlawfully discriminated against or sexually harassed should contact the Equal Opportunity Office.

2. For purposes of this policy, "faculty" means any teacher or other individual authorized by the university to academically evaluate students, or who has a legitimate need to know regarding the processing and disposition of an academic grievance.

Scholastic Recognition Each Semester

The dean of each academic college at the close of each semester will post a list of names of undergraduate students who are ranked in the top 5 percent of their college for the given semester, who have earned a minimum of 14 credit hours (7 credit hours for spring and summer terms), and who have earned a minimum grade point average of at least 3.5 for the semester.

Grades

After the semester has ended and all grades have been submitted by the faculty, students may access their grades through Route Y on the BYU homepage.

Records

Records Office
B-150 ASB
(801) 422-2631

The Records Office is the official guardian of all permanent records of all academic work done at the university. The office is also responsible for issuing official transcripts of credit. Official transcripts include only credit completed through BYU.

Classification of Students

Students are classified as follows:

Credit Hours Earned	Classification
0.5–29.9	Freshman
30–59.9	Sophomore
60–89.9	Junior
90 and over	Senior

Access to Education Records—FERPA

Student educational records at BYU are generally accessible to eligible students according to the provisions of the Family Educational Rights and Privacy Act (FERPA). BYU has adopted an Access to Student Records Policy that explains in detail student rights relating to their educational records. A copy of the policy is available at the Office of the Registrar, B-150 ASB, Provo, UT 84602-1114.

The following is notice of student rights to their educational records, a summary of the procedures for exercising those rights, and a description of student directory information that may be disclosed to the public without the student's consent as required by law:

Eligible students, admitted and enrolled at BYU, generally have the right to:

1. Inspect and review their educational records within a reasonable period of time upon submitting to the appropriate department managing their educational records a written request, with proof of identification, specifying the records to be inspected. The department will notify the student of the time and place the records may be inspected.
2. Petition BYU to amend or correct any part of the education record believed to be inaccurate, misleading, or in violation of their privacy rights. Students may submit a written request to the department holding the record, clearly identifying the part of the record they want changed, and specify why it is inaccurate or misleading. If the department decides not to amend the record as requested, the department will notify the student of the decision and advise them of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures as outlined in university policy will be provided to the student when notified of the right to a hearing.
3. Consent to disclosure of personally identifiable information contained in the student's educational record, except as otherwise authorized by law. Examples of exceptions to consent of disclosure include:
   a. Access of educational records by BYU officials and agents having a legitimate educational interest in the records. This category generally includes any BYU official or agent who accesses student educational records for the purpose of performing a task or responsibility relating to his or her employment or professional responsibility at the university. These individuals may include faculty, administration, staff, and other university agents who manage student educational record information including, but not limited to, student education, discipline, or financial aid.
   b. Parents who establish the student's dependency for federal income tax purposes.
   c. Upon request, BYU will disclose educational records without consent to officials of another college or university to which the student seeks or intends to enroll.
4. File a complaint with the U.S. Department of Education concerning failures by BYU to comply with the requirements of FERPA. The name and address of the office that administers FERPA is Family Policy and Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-4605, www.ed.gov/offices/om/fpco/.

BYU has designated the following student information as directory information that it may disclose to the public without the consent of the student:

Name
Addresses and telephone numbers
E-mail address
Month/Day/Place of birth
Names of parents or spouse
Major and minor fields of study
Participation in officially recognized activities and sports
Weight and height of members of athletic teams
Pictures
Dates of attendance (current and past)
Number of months/semesters enrolled
Class standing (freshman, sophomore, etc.)
Enrollment status (full-time, part-time, less than half-time)
Degrees and awards received
Previous educational institutions attended
Dates of employment and job titles for student employment positions
Anticipated future enrollments
Course registrations prior to the beginning of a semester or term
Expected date of graduation
Deferred registration eligibility

Students have the right to restrict disclosure of the above directory information. To request restriction of disclosure, students must file a written request in the Registrars' Office. To avoid being listed on some directories, this must be done on or before the tenth day of a semester or the sixth day of a term. Forms for this request are available in the Office of the Registrar.

Transcript Record Holds

A hold will be placed on a student's record for failure to meet university obligations (fees outstanding, university standards violations, etc.). Until the obligation is fulfilled, no copy of the academic record or diploma or information about the record will be released, and graduation may be delayed or denied.

Earning Credits

Students earn approved university credit in the following ways:

Regular Course Work

Complete work in regular courses offered at BYU. Complete college-level courses through Independent Study, Evening Classes, or other Continuing Education programs.

Transfer Work

Transfer credit for college-level courses completed at an accredited college or university and transferred to Brigham Young

University. (See the Admissions section of this catalog for further explanation on transfer college credit.)

Advanced Placement (AP) Exam

Complete the Advanced Placement (AP) examinations. Students who score a composite grade of 5, 4, or 3 in any subject may receive up to 8 semester hours of college credit in that subject.

Military Credit

Serve in the armed forces. Students who have been on active duty in the service for more than one year can receive 2 semester hours of wellness and 4 semester hours in military science. Additional credit may be granted for college-level training and experience in the service. To receive credit, bring the military service DD-214 form to the Admissions Office, A-153 ASB.

International Baccalaureate (IB)

Students who complete the International Baccalaureate (IB) examinations will receive college credit. An IB course at the subsidiary level will normally be given 3 hours of general credit. An IB course completed at the higher level may receive 6 hours of general credit and possibly fill a general education requirement.

Challenge Examination

Students may receive credit by challenging some courses at the university through a separate examination procedure. Departments reserve the right to decide which courses may be challenged by examination. Religion courses, internship courses, exercise sciences and dance activity courses, and other activity participative courses, such as music, youth leadership, and ROTC, may not be challenged.

Only under exceptional circumstances, such as the foreign language challenge examination, can a course completed earlier be repeated by the challenge procedure.

The challenge examination is not meant to certify that a student has attended the class and completed all course requirements. The challenge examination credit merely shows that the student's skill and knowledge is sufficient to pass a challenge examination for the course.

Only students who have completed at least one course at BYU through day or evening school or the Salt Lake Center are eligible for the challenge examination option. Students currently enrolled are eligible to take the exam, but the credit will not be posted to the transcript until the other BYU credit and grades are posted. Students who are suspended or dismissed from the university are not eligible to challenge courses. Students who are suspended or dismissed may not have challenge examination credit posted to their record even if the examination was taken prior to the suspension or dismissal.

Once students have graduated, they are not eligible for challenging any additional credit at BYU unless it is specific to the graduate program to which the students have been admitted. (See current BYU Graduate Catalog for information on how to challenge graduate courses.)

Some challenge exams for credit are offered in the Testing Center, and others are arranged through the department offering the course. A fee payable to the Testing Center is charged for exams offered there. A fee payable to Student Financial Services in D-155 ASB is required for exams offered through individual departments. The student should check with the department to see if the exam is offered in the department or through the Testing Center. To earn academic credit and a grade for the course, the student must sign a Challenge Examination Form and have the Testing Center or the department submit it to the Records Office in B-150 ASB. The time limit for a student to choose course credit is determined by the individual academic department, not to exceed one year. No additional fees are charged to post the credits to the transcript. The student's transcript and cumulative grade point average reflect the grade earned on the exam. The procedure to take exams and request academic credit follows.

Procedure for Challenge Exams Given at the Testing Center

1. Contact the appropriate department for the exam procedure and content before going to the Testing Center.
2. Go to the Testing Center (265 HGB). (For testing dates on GE challenge exams, see table in University Core: General Education section of the current class schedule.)
3. Pay the required fee at the Testing Center.
4. After the exam is graded and the choice is made to receive graded credit, obtain a Challenge Examination Form at the Testing Center and have it validated there. To accept the grade and receive credit for the course, sign the Challenge Examination Form and have the Testing Center submit it to the Records Office (B-150 ASB). After taking the exam there is a limited time to request that the grade be submitted to receive course credit. The time limit to choose course credit is determined by the department, not to exceed one year. Graded credit will be added to the student's official university transcript, and the progress report will show any GE requirement as fulfilled. (Students taking the Physical Science examination may take the grade or an exemption if their score is 75 percent or above. If their score is between 60 and 74 percent, they may receive graded credit.)
5. Students enrolled in the course when they pass its challenge exam **must** also drop the course. Students who drop the class after the *add deadline* (ten class days after a semester starts or six days after a term starts) will receive a W on their transcript for dropping the course. If the course is not *officially* dropped before the withdraw deadline, the grade given by the instructor based on class performance will appear on the transcript.

Procedure for Challenge Exams Not Given at the Testing Center

1. Whether or not students are enrolled in the course they are challenging:
   a. Complete the Challenge Examination Form available from the department.
   b. Arrange with the department to take the exam.
   c. Pay the $20 required fee at Student Financial Services in D-155 ASB and have the form validated there ($20 fee per course except for the language exams).
   d. Present the validated form to the department examiner.
   e. Have the grade and credit recorded on the form by the examiner and obtain the necessary departmental signatures.
   f. After seeing the grade, students may choose to have the credit posted to their academic record by signing the Challenge Examination Form and having the department send the completed form to the Records Office (B-150 ASB). After taking the exam there is a limited time to request that the grade be submitted to receive course credit. The time limit to choose course credit is determined by the department, not to exceed one year.
2. Students enrolled in the course when they pass its challenge exam **must** also drop the course. Students who drop the class after the *add deadline* (ten class days after a semester starts or six days after a term starts) will receive a W on their transcript for dropping the course. If the course is not *officially* dropped before the withdraw deadline, the grade given by the instructor based on class performance will appear on the transcript.

Exemption Examinations for GE Requirements

Some general education requirements can be accomplished by successfully completing an examination. Exemption examinations for selected GE courses are offered at the Testing Center. (See table in University Core: General Education section of the current class schedule for dates of exemption examinations.)

Procedure for Exemption Exams

1. Contact the appropriate academic department for exam procedure and content before going to the Testing Center.

2. Go to the Testing Center (265 HGB) on one of the examination days. (See table in University Core: General Education section of the current class schedule.)
3. Pay the required fee per class at the Testing Center.

Students enrolled in the course when they pass its exemption examination **must** also drop the course. Students who drop the course after the *add deadline* (ten days after a semester starts or six days after a term starts) will be officially withdrawn. (This shows as a W on the transcript.) If the course is not *officially* dropped before the drop deadline, the grade given by the instructor based on class performance will appear on the transcript.

Note: The progress report of students who pass an exemption exam at the Testing Center will be updated automatically at the end of the semester or term. Students should retain their score report for their records.

Earning BYU Credit While on Suspension

Students who have been suspended from Brigham Young University are not eligible to enroll in courses through day school, evening school, or any of the Continuing Education programs offered by the university except those courses offered through Independent Study. Students should consult their advisement center to determine which Independent Study courses to take.

Repeating Classes

To have a previously completed course marked *repeated*, the new course must be equal or greater in credit hours. When a class has been repeated, the credit used in computing the grade point average is the grade and credit hours earned the last time the repeated class was taken. Students may repeat classes in the following ways:

1. Repeat Brigham Young University courses at Brigham Young University (except for R-suffix courses—see Abbreviations and Symbols in the Using This Catalog section).
2. Repeat at Brigham Young University courses initially taken at another university. (A statement of equivalency must be supplied by the appropriate BYU department chair.)
3. Repeat at another institution courses taken there and have the credit transferred to Brigham Young University.

Note: A course repeated at an institution other than the one at which it was taken originally and other than at BYU will not be counted as a repeat.

Discontinuance and Student Academic Record Appeals Committee

Discontinuance

Discontinuance Office
B-150 ASB
(801) 422-7705

To withdraw from the university, day students who have registered for classes and paid tuition must officially discontinue to initiate a tuition refund. (Refer to the Tuition and Fees section of this catalog for refund information.)

The discontinuance process includes the following:

1. Before the add deadline students may use the AIM registration system through Route Y.
2. After the add deadline consult with the Discontinuance Office representative and complete discontinuance forms available from the Discontinuance Office or http://discontinuance.byu.edu/.
3. If discontinuing during or after the sixth week of the semester (or third week of the term or block), obtain signatures of individual class instructors (student is now responsible for grades earned in class). The instructor will indicate an official withdrawal (W) or an academically failing (WE) withdrawal grade.
4. Submit discontinuance forms and be signed out by a Discontinuance Office representative.

Discontinuance from a fall or winter semester or from the term to which you are newly admitted could forfeit your eligibility to attend furutre semesters without reapplying through the Admissions Office. All undergraduate students who discontinue during a major semester (fall or winter) or during the term for which they were accepted, should contact the discontinuance counselor at (801) 422-7705 about future readmission eligibility and deferment options.

To withdraw after the twelfth week of the semester (or fifth week of a block or term), students must file a petition with the Registration/Records petition secretary (B-150 ASB) rather than contacting the Discontinuance Office.

Those students registered as Evening Classes students only must discontinue through the Office of Evening Classes, 120 HCEB. Law School students must initiate their discontinuance through the office of the Law School dean, 348-A JRCB.

Students who leave the university under emergency conditions and subsequently do not return still have the responsibility to discontinue before the discontinuance deadline. Official termination can be completed by contacting the Discontinuance Office at the earliest possible time.

Student Academic Record Appeals Process

The Student Academic Record Appeals Process has been established for students who encounter situations involving non-academic extenuating circumstances or emergencies potentially affecting their educational records that fall outside the realm of normal university policy and procedure. The petition process must be initiated within *one* year from the semester or term in question. It is the student's responsibility to obtain the necessary supporting information from the instructor, physician, employer, etc., to accompany the request. Petition forms may be obtained at the Registrar's Office, B-150 ASB.

Graduation

Graduation Evaluation Office
B-150 ASB
(801) 422-4218

Graduation Information

Adherence to University Standards

Students are required to be in good Honor Code standing to graduate. In addition, graduation may be delayed or denied for students whose ecclesiastical endorsement has been withdrawn or who have unmet financial obligations with the university.

Note: Any hold, warning, or probation by the Honor Code Office must be properly cleared well before graduation.

Application for Graduation

All students desiring to graduate must apply for graduation. Students applying for the bachelor's degree should do so during their junior year. Application forms are available at the college advisement centers. Students must submit a completed application form and a graduation fee of $15 for a bachelor's degree to Student Financial Services (D-155 ASB) no later than September 15, 2007, for December graduation; November 15, 2007, for April graduation; and April 15, 2008, for August graduation.

Students who apply after the deadline dates will need to contact their advisement center to be considered for graduation. The Graduation Evaluation Office (B-150 ASB) will notify students in writing of the general education, major(s), minor(s), and university requirements remaining.

Students who plan to obtain teacher licensure must see the Education Advisement and Certification Office before turning in their graduation application to Student Financial Services.

Attendance at Commencement

All candidates for graduation are encouraged to attend the commencement and convocation exercises. Diplomas will be mailed to students after all grades are submitted and all graduation requirements are certified complete. Commencement exercises are held in April and August only. December graduates are invited to the April commencement following their graduation.

Deadlines for Transfer, Correspondence, and Incomplete Credit

All incomplete grades must be removed from the student's record, special examinations and general education requirements must be passed and recorded, and all transfer and correspondence (Independent Study) credit must be on file in the Records Office at least four weeks before commencement.

Earning Lower Degree After Receiving Higher Degree

A person who has earned a higher degree is ineligible to earn a lesser degree at BYU unless exception has been granted by the Undergraduate Steering Committee (USC). Petitions for exception can be directed to the Admissions Office, which will forward the petition to the USC.

Independent Study Credit

A maximum of 36 semester hours of Independent Study credit may be applied toward the 120-semester-hour requirement for a baccalaureate degree.

Note: See the Bachelor of General Studies Program section of this catalog for BGS requirements.

Scholastic Recognition

University Honors

To graduate with University Honors, a student must:

1. Commit to graduate with University Honors and consult with an Honors Advisement Center representative on a regular basis.
2. Complete the honors curriculum requirement.
3. Complete the honors Great Works requirement.
4. Complete the honors Advanced Languages requirement.
5. Complete the honors service requirement.
6. Complete the honors thesis requirement.
7. Have a cumulative grade point average of at least 3.5.
8. Submit a graduation portfolio that summarizes the student's honors experiences.

More detailed explanations of the Honors Program are available in 102-A MSRB and in the Honors Program section of this catalog.

Latin Scholastic Distinctions

Latin Scholastic Distinctions at graduation are determined by GPA for the top 10 percent of the graduating seniors based on cumulative total and BYU grade point averages.

Summa Cum Laude is awarded on the basis of grade point average to the top 1.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Magna Cum Laude is awarded on the basis of grade point average to the top 1.1 to 5.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Cum Laude is awarded on the basis of grade point average to the top 5.1 to 10.0 percent of the baccalaureate candidates who have earned a minimum 45 semester hours of credit at BYU.

Graduation Requirements

Baccalaureate Degree Requirements

The baccalaureate degree is awarded for completion of a specified program of university study. It recognizes important changes in outlook, understanding, and proficiency that result from university experience. At BYU this program of study includes the university core, the discipline of a specific major, and each student's choice of electives. In addition, a minimum of 30 semester credit hours in residence at BYU, a minimum total of 120 credit hours, and a cumulative GPA of at least 2.0 are required.

University Core Requirements for the Baccalaureate Degree

See the University Core section of this catalog for complete information.

Major Requirements for the Baccalaureate Degree

See specific major requirements in the Academic Departments/Schools/Areas, Degrees, and Courses section of this catalog.

Minimum University Requirements

Residency Requirement

At least 30 credit hours must be earned in residence on the BYU campus in Provo as an admitted day student to qualify for a baccalaureate degree.

Total Credit-Hour Requirement

A candidate for a baccalaureate degree must complete a minimum of 120 credit hours.

Grade Point Average Requirement

To graduate from BYU students must earn a minimum 2.0 cumulative BYU grade point average and a minimum 2.0 total cumulative grade point average. Students must also meet any stipulated minimum grade point average requirements in their major.

D Credit

Students may use a course in which they receive a D ("minimum passing") to complete major, minor, religion, or general education requirements. Those receiving a D in a course will not be required to retake the course unless a higher minimum grade is stipulated in a degree program or course sequence description in the undergraduate or graduate catalog.

Courses taken at other colleges or universities with D grades will count toward the total hour requirement for graduation but will not fill BYU general education requirements—and in most instances will not fill major requirements.

Major Requirements

The curricular requirements of a specific major must be satisfactorily completed, including any additional departmental requirements related to the major. A minimum of 20 credit hours in the major must be completed in residence as an admitted day student, 10 of these on the BYU campus in Provo.

Double Major

A second major is rare and *must be approved* by the chair(s) of the department(s) involved and the dean of the college responsible for the primary major. The second major *proposal and approval process* requires an evaluation of all university core and major requirements and a time-to-graduation analysis. College advisement centers are prepared to assist interested students in this process. Courses used to satisfy the requirements of a student's major can also be used to satisfy the requirements of an approved second major, unless such is not permitted by the requirements of the proposed second major. Only the primary major will be listed in the university commencement program.

Changes of Requirements

University graduation requirements are occasionally modified or changed. The university informs students of such modifications through its catalog (both published and online), online class schedules, and all advisement centers on campus. Students who leave the university for an extended period of time can be informed of such changes through these sources.

Policy on "Old" Graduation Requirements and Credit

Brigham Young University is committed to providing its students with an excellent university education consisting of a broad general education that includes religious education and a strong major education. Programs of the university change and develop in the continuing effort to make learning and experience as valuable as possible. Development, growth, and improvement are expected parts both of our lives and our institutions. It is because of the commitment to a superb education that the university's programs develop and improve and that students are expected to meet the current standards of the university when they graduate, even though they may have begun their studies long ago under quite different expectations.

Students who complete a baccalaureate degree within eight academic years of enrollment at BYU qualify for graduation by meeting those religion, university, and general education requirements in effect when they initially enrolled, even though there may have been changes in general education and religion requirements since that time.

In addition, students who complete a baccalaureate degree within eight academic years of enrollment at BYU qualify for graduation by meeting those major education requirements in effect when they officially declared the major with which they plan to graduate even though such declaration was made at some point following their original enrollment. (A student officially declares a major one of two ways: [1] by indicating the choice of major on part 2 of the CES Admission and Scholarship Application or [2] by submitting a Change of Major Form to a college advisement center at a subsequent time.)

Students who have not graduated within eight years of their initial enrollment at BYU will be required to meet with the dean and department chair in the area in which they are majoring to determine graduation requirements and the use of credit previously earned. The Graduation Evaluation Office will evaluate credit for general education requirements. Where general education or major requirements have changed or where credit previously earned was in an area of substantial change, students may be required to do additional work to meet graduation requirements.

This means that credit earned more than eight years before admission or readmission (including transfer credit) will be accepted to meet general education or major graduation requirements at the discretion of the university.

Bachelor of General Studies

See the Bachelor of General Studies Program in the Division of Continuing Education section of this catalog.

Advisement

An important corollary of the university's commitment to provide its students with an excellent university education is its commitment to help students find their way through their programs effectively and efficiently. Students whose educational experience has reached over many years and who find that changes in programs will require additional work and preparation should consult with department advisors for help in planning their schedules in the best and most encouraging way possible.

The university's requirement that a student graduate under current or very recent standards is meant to benefit the student and is in no way established to deter a determined person from returning to the university after years away. Good advisement can be of great help in working out a program of study at the university, taking into account individual needs, concerns, and experience.

Students who return to the university after an extended absence should contact the Graduation Evaluation Office (B-150 ASB, [801] 422-4218) and confer with their college advisement center counselors and department advisors immediately upon returning to the university, both for advice and help concerning graduation requirements and for evaluation of their credit. In many instances it will prove possible to negotiate a schedule of classes that will allow the student to move toward a degree without lost effort.

Colleges, Schools, Religious Education, and Undergraduate Education

College of Biology and Agriculture

301 WIDB
(801) 422-3963
Internet: http://bioag.byu.edu

Dean: Rodney J. Brown, Professor, Nutrition, Dietetics, and Food Science
Associate Dean: John D. Bell, Professor, Physiology and Developmental Biology
Associate Dean: Alan R. Harker, Professor, Microbiology and Molecular Biology
Assistant Dean: John D. Lee
Assistant Dean: Steven L. Taylor

The following departments are included within the College of Biology and Agriculture:

Integrative Biology (InBio)
Microbiology and Molecular Biology (MMBio)
Nutrition, Dietetics, and Food Science (NDFS)
Physiology and Developmental Biology (PDBio)
Plant and Animal Sciences (PAS)

Courses offered in biology give students a general understanding of the fundamental principles of plant, animal, and microbial life and their relationship to the world. Specialized courses emphasizing teaching and research are offered to majors in the several branches of biological science.

Agricultural sciences address three of the great dilemmas facing mankind in the twenty-first century: harnessing biological technology to meet the needs of an expanding human population; assessing and minimizing the impact of human activities on an increasingly vulnerable environment; and adapting urban landscapes to meet increasing water, space, and other resource limitations.

Alphabetical List of Majors Offered in the College of Biology and Agriculture

Bio-Agribusiness Management: Agricultural Management Emphasis (PAS)
Bio-Agribusiness Management: Biotechnology Business Emphasis (PAS)
Bioinformatics (InBio)
Biology (Biol)
Biology Composite Teaching (InBio)
Biophysics (PDBio)
Clinical Laboratory Science (MMBio)
Dietetics (NDFS)
Environmental Science (PAS)
Food Industry Management (NDFS)
Food Science (NDFS)
Genetics and Biotechnology (PAS)
Integrative Biology (InBio)
Landscape Management (PAS)
Microbiology (MMBio)
Molecular Biology (MMBio)
Nutritional Science (NDFS)
Physiology and Developmental Biology (PDBio)
Plant Biology (PAS)
Wildlife and Wildlands Conservation (PAS)

See the departmental sections in this catalog for details regarding these programs.

Office of Academic Advisement

Marla Allred, Supervisor
379 WIDB
(801) 422-3042
Hours: 8:00 a.m. to 5:00 p.m., Monday–Friday

The goal of the Office of Academic Advisement is to support a student's academic progress from orientation through graduation. The office maintains student records; assists students with general education questions, registration, major declaration, academic planning, and graduation clearance; and clarifies policies and procedures of the college and university. Students will find it well worth their time to take advantage of these services.

Office of College Life

Audrey Megerian, Coordinator
380 WIDB
(801) 422-3043
Hours: 8:00 a.m. to 5:00 p.m., Monday–Friday

The purpose of the Office of College Life is to create an enriching and supportive atmosphere to help students reach their potential. Some of the responsibilities are new-student orientation, internships, mentoring, scholarships, the Student Council, clubs, and promoting a Zion effort designed to unify the students.

Preveterinary Medicine

Beverly L. Roeder, Advisor
386 WIDB
(801) 422-6873

Students interested in veterinary medicine are encouraged to incorporate required preveterinary curriculum into an academic program of their choosing. See the description of the biology major for additional information.

Ezra Taft Benson Agriculture and Food Institute

Allen C. Christensen, Director
110 B-49

The mission of the Benson Institute is to raise the quality of life among the people of the world through improved nutrition and enlightened agricultural practices. Cooperating with universities in the developing world, the institute emphasizes developmental research in village nutrition and agricultural production directed toward promoting self-reliant traditional families.

M. L. Bean Life Science Museum

Larry St. Clair, Director
Jack Sites, Associate Director
Marta Adair, Assistant Director
290 MLBM
Internet: http://bioag.byu.edu/mlbean/
Hours: 10:00 a.m. to 9:00 p.m. Monday–Friday
10:00 a.m. to 5:00 p.m. Saturday

Current museum curators and collection managers are as follows:

Duane Atwood, Collections Manager, Herbarium
John Bell, Curator of Mollusks
Lee Braithwaite, Curator of Marine Invertebrates
Shawn Clark, Collections Manager, Arthropods
Keith Crandall, Curator of Crustaceans

Leigh Johnson, Curator, Herbarium
Duke Rogers, Curator of Mammals
Dennis Shiozawa, Curator of Fish
Jack Sites, Curator of Reptiles and Amphibians
Wesley Skidmore, Collections Manager, Vertebrates
Larry St. Clair, Curator of Nonvascular Cryptogams
Clayton White, Curator of Birds
Michael Whiting, Curator of Insects

The museum offers a broad range of educational opportunities for students, from specialized graduate and undergraduate research in the various systematic collections housed in the museum to impromptu tours for the casual visitor. Many university classes utilize the extensive holdings, but the museum also serves the community by providing educational opportunities for elementary and secondary schools as well as civic groups.

The Botanical Collection includes herbaria of vascular plants and nonvascular cryptogams from many parts of the world. The vascular plant collection includes more than 10,000 species represented by more than 500,000 herbarium sheets. The collection is made up principally of plants from western North America but includes many materials from the eastern states, Europe, Mexico, Australia, and the Pacific Isles. Acquisitions of plants from Alaska, Greenland, Siberia, and the Canadian Arctic have added significantly to the collections of Arctic plants. Nonvascular cryptogams number more than 100,000 specimens, mostly from western North America.

The herbarium includes more than 2,000 specimens from the Mediterranean region of Europe and from the Middle Eastern countries of Iran and Afghanistan. The fossil plant collections contain more than 10,000 specimens.

The Zoological Collections consist of a large series of vertebrate and invertebrate species from North America and from many foreign countries. These materials are available to teachers, advanced students, and visiting scientists.

The invertebrate collection includes more than two million insect specimens (emphasizing butterflies, flies, and beetles) and their near relatives as well as other invertebrate phyla. Medically important arthropods such as fleas, lice, mites, and ticks are well represented. A large and valuable collection of invertebrate sea shells is also present, as well as more than 5,000 crustaceans. The invertebrate collections are a sampling of specimens from all parts of the world but are particularly strong in their representation of the environments of the Great Basin.

The vertebrate collections consist of more than 100,000 fish, 37,000 amphibians and reptiles, 11,000 birds, and 37,000 mammal research specimens. The vertebrate collections also include birds' eggs, South and Central American birds, and Hawaiian fishes. Staff members, graduate students, and friends of the university have contributed material from Mexico, South America, Africa, Taiwan, Malaysia, the South Pacific islands, and other areas. The vertebrate collections also include big game wildlife gathered from around the world.

More than 50,000 invertebrate and vertebrate museum specimens include frozen tissues or tissues preserved in ethanol.

A highlight of the vertebrate display collection is the most complete accumulation of live mounted waterfowl and pheasants in the world. A synoptic collection of the vertebrates of Utah is displayed on the first floor.

The botanical and zoological collections housed in the museum are a valuable university resource and document phylogenetic and systematic research.

The museum is accredited by the American Association of Museums and maintains membership in national and regional professional museum organizations.

The Lytle Preserve in southwestern Utah provides a 600 plus acre area as an outdoor classroom in the northernmost extension of the Mojave Desert. It is managed for natural study and ecological research in a unique desert setting.

Ira A. Fulton College of Engineering and Technology

270 CB
(801) 422-4326

Dean: Alan R. Parkinson, Professor, Mechanical Engineering

Associate Dean: David K. Anthony
Associate Dean: John N. Harb, Professor, Chemical Engineering
Associate Dean: Spencer P. Magelby, Professor, Mechanical Engineering

The Ira A. Fulton College of Engineering and Technology is accredited under the Accreditation Board for Engineering and Technology (ABET) for all engineering and technology programs. The men and women who have graduated from our college will be prepared for entry into the finest graduate schools or workplaces. The mission of the Fulton College is to develop men and women of faith, character, and technical ability who will become outstanding leaders throughout the world.

Alphabetical list of majors offered in the College of Engineering and Technology:

Chemical Engineering (Ch En)
Civil and Environmental Engineering (CE En)
Construction Management (CM)
Electrical and Computer Engineering (EC En)
Facilities Management (FM)
Industrial Design (InDes)
Information Technology (IT)
Manufacturing Engineering and Technology (Mfg)
Mechanical Engineering (Me En)
Technology Teacher Education (TTE)

Minors offered in the College of Engineering and Technology:
Information Technology (IT)
Manufacturing (Mfg)

See the department sections in this catalog for details regarding these programs or go to http://www.et.byu.edu.

College Advisement Center (CAC)

Pamela O. Williamson, Supervisor
Judith Ann Benedict, Advisor
264 CB
(801) 422-4325

The college advisement center advisors are available to assist students with academic planning and information about majors, the university core, changing majors, application for graduation, scholarships, and university policies and procedures.

College of Family, Home, and Social Sciences

990 SWKT
(801) 422-2083

Dean: David B. Magleby, Professor, Political Science
Associate Dean: Stephen J. Bahr, Professor, Sociology
Associate Dean: Craig H. Hart, Professor, School of Family Life
Associate Dean: Elaine Walton, Professor, School of Social Work

Academic Departments and Curriculum Areas

American Heritage
Anthropology
Economics
Family Life
Geography
History
Neuroscience
Political Science
Psychology
Social Work
Sociology

Research and Academic Support Areas

Camilla Eyring Kimball Chair of Home and Family Life
Center for the Study of Elections and Democracy (CSED)
Charles Redd Center for Western Studies and Lemuel H. Redd Jr. Chair in Western History
Comprehensive Clinic
Family Studies Center
Marjorie Pay Hinckley Chair in Social Work and the Social Sciences
Mary Lou Fulton Chair in Family, Home, and Social Sciences
Museum of Peoples and Cultures
New World Archaeological Foundation
Women's Research Institute

International and Area Studies

The College of Family, Home, and Social Sciences administers the International Relations Program, coordinated by Darren Hawkins. Faculty in the college also teach courses in the various area studies programs, including Asian Studies, Latin American Studies, and Middle East Studies. Students in these programs receive advisement from the IAS Advisement Center, 273 HRCB, (801) 422-3548.

College Advisement Center

Lori L. Seely, Supervisor
151 SWKT
(801) 422-3541

Advisors are prepared to assist students in the selection of university core offerings that will contribute to a broad education. Advisors also assist faculty in offering counsel for specific majors, counseling for a career, and monitoring a student's progress toward graduation.

Purposes

The College of Family, Home, and Social Sciences is composed of departments whose primary focus is people. Particular concerns include the family as the basis of society, understanding governments and societies in which people live, and solving world problems.

The instructional program of the College of Family, Home, and Social Sciences has two major emphases. One provides a broad education that helps develop an appreciation of the values that establish and strengthen modern civilization and that prepares individuals to contribute effectively as citizens. The other prepares professionals to discover truths that reveal our heritage and to provide significant service to individuals, families, and institutions.

Many of the departments and programs housed within the college provide opportunities for student learning and exploration outside the classroom through internships and faculty-mentored teaching and research experiences.

Degrees Offered

Bachelor's, master's, and doctoral degrees are offered in the college. See the individual department and program listings in this catalog for specific degrees offered and the requirements for each.

Scholarships and Awards

Scholarships and awards are available to qualified students. Applications may be obtained from the Financial Aid and Scholarships Office, A-141 ASB.

Women's Studies Minor

Bonnie Ballif-Spanvill, Director
1063 JFSB
(801) 422-4609

The Women's Research Institute sponsors a minor in Women's Studies. This program educates students in the findings, theory, and research methodologies fundamental to the women's studies field, and fosters critical thinking and superior scholarship. The research and study of women and their viewpoints in traditional academic disciplines creates a new framework of interpretation and scholarship for our historical and cultural traditions. Courses in the minor represent many disciplines and provide a variety of perspectives on topics relating to women's experiences.

See the Women's Research Institute section of this catalog for course requirements for this minor.

Family Studies Center

Randal D. Day, Director
1041 JFSB
(801) 422-2948

The Family Studies Center is dedicated to identifying characteristics associated with strong families and the processes by which they develop. At the heart of the center's mission is a deep and abiding desire to understand families and family members and to assist them to achieve their full potential. The fundamental guiding document is "The Family: A Proclamation to the World" by the First Presidency and the Quorum of the Twelve Apostles of The Church of Jesus Christ of Latter-day Saints. Understanding and promoting the principles in this proclamation will provide guidelines to help strengthen individuals, marriages, and families.

The center fosters the important link that research can and must have to families themselves. Research that illuminates the relationship between the family and other important institutions such as governments, schools, and business, as well as social contexts including households, neighborhoods, and cultures, is germane to the center's research program. Relevant information is presented through publications, conferences, symposia, seminars, and lectures.

The center helps organizations design and implement programs to aid couples and individuals in building and sustaining stronger families. Programs are designed not only to strengthen families but also to prevent critical family problems, including family violence, child abuse and neglect, divorce, financial mismanagement, and substance abuse. In addition, public policies that strengthen families are discussed and developed.

Museum of Peoples and Cultures

105 ALLN
(801) 422-0020

The Museum of Peoples and Cultures is located in Allen Hall at 700 North 100 East in Provo. Museum hours are from 9:00 a.m. to 5:00 p.m. Monday through Friday. Guided tours are available for a nominal fee and can be scheduled by calling the museum at (801) 422-0020.

Educational Opportunities. Classes in museum practices designed to provide students with practical experience in collections care and management—including computer applications, exhibition curation, and educational programming—are available with approval. Museum practice courses are taught by the museum's staff, who are adjunct anthropology faculty (see listings in the Anthropology section of this catalog). The museum also employs several students each semester to assist in collections work and welcomes volunteers to assist in educational and promotional work.

Anthropological Collections and Research Opportunities. Museum collections comprise prehistoric and ethnographic artifacts from various parts of the world. The bulk of holdings are from the Southwest, Mesoamerica, Polynesia, ancient Peru, and the Great Basin, especially Utah Valley. The museum also cares for a collection of more than 20,000 black and white and color photographs that document BYU archaeological research and artifactual materials. The museum encourages students to inquire about research possibilities using its collections.

Neuroscience Center

Dawson W. Hedges, Director
1055 SWKT
(801) 422-1218

The College of Family, Home, and Social Sciences is the current host for the multi-disciplinary Neuroscience Center. Neuroscience is the field of study covering the development and function of the central nervous system and its connection to influencing and regulating behavior. This degree-granting program functions through the collaborative efforts of the Department of Psychology and the Department of Physiology and Developmental Biology (College of Biology and Agriculture). See the Neuroscience Center section of this catalog for program admission information and course requirements.

College of Fine Arts and Communications

A-501 HFAC
(801) 422-2819

Dean: Stephen M. Jones, Professor, Music
Associate Dean: Sherry L. Baker, Associate Professor, Communications
Associate Dean: Rory R. Scanlon, Professor, Theatre and Media Arts
Assistant Dean: Scott M. Boyter

The following departments and school are in the College of Fine Arts and Communications:

Communications
School of Music
Theatre and Media Arts
Visual Arts

Music dance theatre is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the Department of Theatre and Media Arts, the Department of Visual Arts, and the Ira A. Fulton College of Engineering's School of Technology.

The College of Fine Arts and Communications teaches students to think, to feel, to perform, and to communicate. Its purpose is to give students the knowledge and skills requisite to a higher education in fine arts and communications. It opens the doors to the world of truth and beauty for exploration by majors and nonmajors alike. Its programs require discipline, critical analysis, research, empathy, and integrity as the means to acquire knowledge and competency in various areas of study encompassed by the college.

The college's classroom instruction is augmented by off-campus internship programs and on-campus laboratory experiences. Journalism students who edit the *Daily Universe*, a student laboratory newspaper, regularly win national awards. Advertising students work on professional campaigns through BYU's Advanced Ad Lab facilities, winning clients from across the nation. Music and theatre performance students participate annually in national competitions, receiving top honors. Film and animation students are well represented in their organizational competitions and hold recognized international awards. Additionally, student and faculty touring groups instruct and entertain Church members and friends around the globe, while BYU Broadcasting offers a worldwide campus connection on both the television and radio stream in multilanguage programming. Back on campus, the Museum of Art and the Division of Design and Production maintain excellence in public art presentation under the direction of the college.

Members of the faculty are competent, dedicated, and award-winning men and women who are concerned about the success of their students. Also, the college brings to campus distinguished professionals for special lectures, master classes, and artistic performances to round out classroom education. Housed in the Harris Fine Arts Center, the Brimhall Building, and several other satellite spaces, the college includes five theatres; two television studios; two concert halls; two student and six professional art galleries; design, journalism, advertising, broadcast, film, animation, and music laboratories; and many music practice and performance rehearsal rooms.

Enrollment in a Major Program

Because **enrollment** in most degree programs in the College of Fine Arts and Communications **is limited** by the availability of resources such as facilities, equipment, and faculty, students are required to follow a specific application process designed to assess individual ability, preparation, and potential. This process also helps each student evaluate the level of accomplishment they

might expect to experience in the major and, after graduation, in the profession itself.

Students are encouraged to carefully study the requirements of the major program they desire to enter. This will help each determine if the program really fits their personal goals and educational objectives. Through a careful review of the catalog, other possible majors can also be considered to make certain one is aware of all the options that might fit their primary and secondary areas of interest. Students may also find additional information on career and educational options by visiting the Counseling and Career Center (2500 WSC).

Applications for degree programs in the college are available from the college advisement center. Students preparing to apply for entrance into a major program must make certain that they complete all of the prerequisite courses and/or specific requirements stipulated in the application process. If they need further assistance, the reception desk in the college advisement center (D-444 HFAC) can provide information.

The application process for each major has been structured to be as fair and impartial as possible, and those who evaluate applications endeavor to admit as many into each program as possible. But enrollment limitations sometimes exclude those who would succeed in the program if they could only be admitted. Those who are not successful in the application process are encouraged to move quickly and decisively toward an alternative major program.

Students admitted to a major program in the College of Fine Arts and Communications are assigned to one of the academic advisors in the college advisement center. The advisors help each student structure a plan for timely graduation and assist with problems and issues that may arise along the way. As students become familiar with the faculty in their area of study, they are able to identify those who are best prepared to assist them in learning more about opportunities following graduation.

College Advisement Center

Brenda Butterfield, Supervisor
D-444 HFAC
Telephone: (801) 422-3777
E-mail: cfacadvise@byu.edu
Internet: www.byu.edu/cfac/advisement/index.html)

Students can receive help in the following ways:

1. This catalog outlines graduation requirements in the areas of emphasis encompassed within the disciplines of communications, music, music dance theatre, theatre and media arts, and visual arts.
2. Assigned faculty members are available to students desiring an assessment of potential performance and career opportunities.
3. After a student has been admitted to a major, CAC advisors will plan student schedules and will keep individual student records.
4. Students will apply for graduation with their academic advisor, at which time general education, university, and major requirements are checked for graduation.
5. Students are cleared for graduation by the college advisement center.

Scholarships and Awards

Scholarships, performance awards, and grants-in-aid are available to qualified students.

Applications for academic scholarships can be obtained at the Financial Aid and Scholarships Office (A-41 ASB, (801) 422-4104). Performance awards are offered by each of the academic units within the college. Applications and information about auditions for performance awards can be obtained by contacting the appropriate department or school.

For information about graduate scholarships, fellowships, and grants-in-aid, see the current BYU Graduate Catalog.

College of Health and Human Performance

212 RB
(801) 422-2645

Dean: Sara Lee Gibb, Professor, Dance
Associate Dean: Diane Chamberlain, Teaching Professor, Exercise Sciences
Associate Dean: Gordon Lindsay, Professor, Health Science

The following departments are in the College of Health and Human Performance:

Dance
Exercise Sciences
Health Science
Recreation Management and Youth Leadership

The mission and goals of the College of Health and Human Performance align with the institutional objectives of Brigham Young University by providing an "environment that increases faith in God and the restored gospel, is intellectually enlarging, is character building, and leads to a life of learning and service" (Merrill J. Bateman, "From Pioneer Roots to a World-Class, Worldwide Institution," 1999 Annual University Conference, p. 8). The college contributes to the total development of students and faculty by "educat[ing] the minds, [bodies,] and spirits of students" (ibid.).

A challenging environment emphasizes the achievement of excellence according to one's aptitudes in the various areas of human development. A foundation for continuous learning prepares individuals to serve their professions effectively, meet personal challenges, care for their families, and serve as responsible citizens.

Goals

1. Provide professional preparation in the academic programs of dance, exercise sciences, health, and recreation management and youth leadership.
2. Advance truth and knowledge through quality research and creative works in areas of specialization in the various disciplines. Such works are often cooperative efforts between faculty and students.
3. Help students obtain the knowledge, skills, and motivation necessary to maintain a healthy lifestyle and improve their neuromuscular skills in dance, sport, and fitness activities.
4. Sponsor outstanding performing groups in dance that favorably promote the university and the Church among alumni, Church members, friends, and others in this country and throughout the world.
5. Contribute to the knowledge, health, and well-being of members of the university community by providing opportunities to engage in dance, sport, and fitness activities through service, intramural, and free-play programs.

College Advisement Center

203 RB
(801) 422-3638

Students obtain help in planning their educational programs through the College of Health and Human Performance Advisement Center and the respective departments.

Health and Human Performance Services

Health and Human Performance Services coordinates free play, intramurals, and event scheduling. Students, faculty members, and staff may use the physical education facilities during scheduled free-play times.

A college computer lab, a teaching technology lab, and a learning resource center are available to support student learning.

College of Humanities

4002 JFSB
(801) 422-2775

Dean: John R. Rosenberg, Professor, Spanish
Associate Dean: Gregory Clark, Professor, English
Associate Dean: Ray T. Clifford, Professor, Linguistics
Associate Dean: Joseph Parry, Associate Professor, Humanities

What Are the Humanities?

The humanities focus on the quest for fluency in the languages of the human conversation, for it is fluency in those languages that makes us full participants in human life. Specifically, the humanities involve inquiry into the structure and uses of language itself, as well as into the ideas and aesthetics of the languages of art, literature, and philosophy.

Study in the humanities fosters historical consciousness; recognition of the connections between ideas, texts, and the people who create them; awareness of the complexity and subtlety of the multiple voices that make up the human conversation; and facility in languages and cultures other than one's own. Building on these essential components of what it means to be "an educated person," students of the humanities develop the higher-order cognitive abilities needed for critical reading, interpretation, analytical thinking, and writing.

This understanding of and ability in the "languages of the human conversation" provide a foundation for successful careers in many different professions and for productive and rewarding lives as educated citizens.

Academic Departments

Asian and Near Eastern Languages
English
French and Italian
Germanic and Slavic Languages
Humanities, Classics, and Comparative Literature
Linguistics and English Language
Philosophy
Spanish and Portuguese

International and Area Studies

The College of Humanities supports the following International and Area Studies (IAS) programs:

American Studies: Kerry Soper, Coordinator
Asian Studies: James Davis, Coordinator
European Studies: Scott Sprenger, Coordinator
Latin American Studies: Ted Lyon, Coordinator
Middle East Studies/Arabic: Donna Lee Bowen, Coordinator

College of Humanities faculty members also teach courses in the following area studies minor programs: African Studies, Ancient Near Eastern Studies, Arab-Islamic Studies, Asian Studies, Chinese Studies, French Studies, German Studies, Italian Studies, Japanese Studies, Jewish Studies, Korean Studies, Latin American Studies, Modern Near Eastern Studies, Russian Studies, Spanish Studies, and Western American Studies.

Students in American Studies receive advisement from the College of Humanities Advisement Center, 1175 JFSB, (801) 422-4789.

Students in Asian Studies, Latin American Studies, and Middle East Studies/Arabic receive advisement from the IAS Advisement Center, located in the David M. Kennedy Center, 273 HCRB, (801) 422-3548.

Programs and Support Areas

Center for Language Studies
Center for the Study of Christian Values in Literature
College Advisement Center
Collegewide graduate Language Acquisition Program
English Language Center
Humanities Technology and Research Support Center
Language credit by examination
Publications Center
Foreign Language Student Residence
Summer Language Institute
Spanish Resource Center

Programs in International Studies

International Internships
International Cinema
Study Abroad

College Advisement Center

Mary Anne Rich, Supervisor
1175 JFSB
(801) 422-4789

The advisement center assists students with registration; information about majors, university core, and changing majors; application for graduation and graduation clearance; career opportunities; and policy and procedure. Students are encouraged to take advantage of these advisement center services.

For advisement regarding specific major requirements, career options, or graduate programs, students should consult with faculty advisors within the various departments. Substitutions, waivers, or evaluation of transfer equivalency within a major will be authorized by the departments, with documentation going to the advisement center.

Language Credit by Examination

Jerry W. Larson, Professor of Spanish; Director, Humanities Technology and Research Support Center
1163E JFSB

Any student enrolled at BYU whose native language is English may receive credit by special examination for certain foreign language courses for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions. Students whose native language is not English may not receive credit for their native language, but they may receive credit by special examination for courses in English offered through the TESOL program of the Linguistics and English Language Department. They may also receive credit by special examination for a language other than their native language as described above.

Graded examinations for languages taught on the BYU campus are administered by the department concerned. Pass-fail examinations for other languages are administered by the coordinator of the Foreign Language Testing Program in the Humanities Technology and Research Support Center. An examination once taken for pass/fail credit cannot be retaken or reevaluated for graded credit.

Center for Language Studies

Ray T. Clifford, Director
3086 JFSB
(801) 422-1201

To extend the exceptional foreign language capabilities of BYU to a large audience, the Center for Language Studies offers a variety of intensive language courses during the summer term (mid-June to mid-August) and regular courses in less commonly taught languages during the academic year. See in-depth information in the Center for Language Studies section of this catalog.

Center for the Study of Christian Values in Literature

Jesse S. Crisler, Professor of English, Director
4106 JFSB

The center holds symposia, conducts writing contests, and publishes the journal *Literature and Belief.*

English Language Center

Neil Anderson, Administrative Coordinator, 4056A JFSB
Norm Evans, Academic Coordinator, 4050 JFSB

The English Language Center is a resident program of intensive English language training.

Foreign Language Student Residence

Jeannie Welch, Coordinator
3086C JFSB
(801) 422-7797

Students who desire a more in-depth language study experience and practical application of the language under the direction of faculty and native residents may apply to live in the Foreign Language Student Residence. All activities in the individual apartments in the residence are conducted in the foreign language. Inquiries should be directed to the coordinator or to the appropriate departmental advisor for detailed information concerning opportunities for men and women in French, Russian, Italian, German, Japanese, Spanish, Chinese, Arabic, Portuguese, and Hebrew.

Humanities Technology and Research Support Center

Jerry W. Larson, Professor of Spanish, Director
1163E JFSB

The Humanities Technology and Research Support Center provides technological and consulting resources to support research and teaching in the College of Humanities. Available in the center are audio, video, and microcomputer facilities in addition to optical scanning services.

College of Nursing

500 SWKT
(801) 422-4144

Interim Dean: Mary Williams, Professor, Nursing
Associate Dean: Catherine Coverston, Associate Professor, Nursing
Associate Dean: Mary Williams, Associate Professor, Nursing

College Advisement Center

Mark E. White, Supervisor
551 SWKT

For information regarding College of Nursing programs and admission application forms, contact the following:

Undergraduate students:
College of Nursing Advisement Center
551 SWKT, (801) 422-4173

Graduate students:
Denise Gibbons Davis, Graduate Secretary
400 SWKT, (801) 422-4142

Study of Nursing at Brigham Young University

The College of Nursing at Brigham Young University, established in 1952, is accredited by the Utah State Board of Nursing and the Commission on Collegiate Nursing Education. The mission of the College of Nursing is to develop professional nurses who promote health, care for the suffering, engage in the scholarship of the discipline, invite the Spirit into health and healing, and lead with faith and integrity.

Baccalaureate graduates are prepared to function in generalist roles in hospital and community settings. They also have excellent preparation for entrance into graduate programs. Graduates of the MS program are prepared for a variety of advanced practice and leadership roles in the health care delivery system.

The college faculty are committed to creating a stimulating learning environment based on Christian principles. They maintain a broad range of research and clinical interests.

Student resources include a fully equipped learning resource center with audiovisual and computer learning aids, a research center, and a state-of-the-art clinical simulation laboratory. Clinical practice opportunities exist in a variety of urban and rural hospital, school, home, and community settings along the Wasatch Front. Students may also gain extended experiences with specialized national and international health programs.

Scholarships and Awards

Scholarships are available for undergraduate and graduate students. Information about additional sources of funding for study are available in the College of Nursing Advisement Center. Research assistantships and teaching assistantships are also available.

College of Physical and Mathematical Sciences

N-181 ESC
(801) 422-2674

Dean: Earl M. Woolley, Professor, Chemistry and Biochemistry
Associate Dean: Dana Thomas Griffen, Professor, Geological Sciences
Associate Dean: Thomas W. Sederberg, Professor, Computer Science

The College of Physical and Mathematical Sciences consists of seven departments:

Chemistry and Biochemistry
Computer Science
Geological Sciences
Mathematics
Mathematics Education
Physics and Astronomy
Statistics

Freshmen who are interested in the physical and mathematical sciences but are undecided about a specific major may register in science fundamentals core courses: Math 112; Chem 111 or 105; Phscs 121.

College Advisement Center

Merle T. White, Supervisor
N-179 ESC
(801) 422-6270

The advisement center provides information and help on registration, graduation requirements, policies and procedures, fields of study, changes of major, and many other aspects of the college's academic life.

Degrees Offered

Bachelor's degrees are offered in chemistry, chemistry education, computer science, earth and space science education, geology, mathematics, mathematics education, physical science teaching, physics, physics teaching, and statistics.

The master of science degree is offered in biochemistry, chemistry, computer science, geology, mathematics, physics, and statistics. The master of arts degree is available in mathematics education. The doctor of philosophy degree is offered in biochemistry, chemistry, computer science, mathematics, physics, and physics/astronomy.

See specific departmental sections of this catalog for baccalaureate degree requirements. Graduate programs are detailed in the 2007–2008 BYU Graduate Catalog.

J. Reuben Clark Law School

341 JRCB
(801) 422-4277

Dean: Kevin J Worthen
Associate Dean: Scott W. Cameron
Associate Dean: James D. Gordon
Associate Dean: Katherine D. Pullins
Associate Dean: James R. Rasband
Assistant Dean: Carl Hernandez III
Assistant Dean: Mary H. Hoagland

The J. Reuben Clark Law School offers a six-semester course of graduate professional study leading to the juris doctor (JD) degree. Information about legal education, admissions standards, and related matters can be obtained from the Law School Admissions Office or at www.law2.byu.edu/.

To be admitted to the Law School, an applicant must be a college graduate who has excelled academically and has scored in the upper range of the nationally administered Law School Admission Test. In addition, applicants must meet the general university admission requirements, including the personal standards required of all students.

Apply for admission on forms provided by the Law School or online at www.lsac.org, and file before March 1 preceding the fall of expected enrollment in the Law School. Enrollment takes place only in the fall of each year.

For more information regarding prelegal education, see the Preprofessional Advisement (Law) section of this catalog.

Marriott School of Management

730 TNRB
(801) 422-4121

Dean: Ned C. Hill, Professor, Business Management
Associate Dean: W. Steve Albrecht, Professor, Accounting
Associate Dean: Michael P. Thompson, Associate Professor, Organizational Leadership and Strategy

Academic Departments

School of Accountancy
Business Management
Information Systems
Organizational Leadership and Strategy
Romney Institute of Public Management
Aerospace Studies (Air Force ROTC)
Military Science (Army ROTC)

Management Advisement Center

Eldon Bott, Supervisor
460 TNRB
(801) 422-4285

Advisors are prepared to assist undergraduate students in successfully completing university, college, and major requirements. Students are encouraged to meet frequently with their advisors. Center personnel are available to help with registration, graduation requirements, fields of study, changes in major, and transfer evaluation, as well as to clarify policies and procedures.

Undergraduate Programs

Three undergraduate degrees are offered by the Marriott School of Management. The first is a bachelor's degree in management, which provides a broad management education. The program is designed to assist students in acquiring knowledge, insight, maturity, competence, and a strong sense of moral and ethical character. An area of emphasis may be taken by students seeking specialization. These areas include corporate finance, financial services, marketing, global supply chain, strategy, organizational behavior/human resources, entrepreneurship, and general business.

The second bachelor's degree is offered by the School of Accountancy to students seeking to combine accounting skills with broad management education (see the School of Accountancy section of this catalog for details). Accounting students interested in acquiring in-depth specialization or seeking careers in public accounting are encouraged to apply to the Master of Accountancy Program.

The third bachelor's degree is offered by the Department of Information Systems to students seeking to combine information systems skills with broad management education (see the Information Systems section of this catalog for details). Students interested in acquiring in-depth specialization in information systems are encouraged to apply to the Master of Information Systems Management Program.

Graduation Application for Bachelor's Degree

When a student has completed 86–96 earned hours (usually during the junior year), application for graduation should be initiated at the Marriott School of Management Advisement Center.

Graduate Programs

The Marriott School of Management offers the following graduate degrees:

MAcc Professional Accountancy
MAcc Tax
MBA Business Administration
MISM Information Systems Management
MPA Public Administration

Individual program brochures are available from the Marriott School of Management, 730 TNRB, Brigham Young University, Provo, UT 84602-3113. Also, refer to the BYU 2007–2008 Graduate Catalog.

David O. McKay School of Education

301 MCKB
(801) 422-3694

Dean: K. Richard Young, Professor, Counseling Psychology and Special Education
Associate Dean: Barbara Culatta, Professor, Communication Disorders
Associate Dean: Marie Tuttle, Teaching Professor, Teacher Education

The five departments in the David O. McKay School of Education are:

Communication Disorders
Counseling Psychology and Special Education
Educational Leadership and Foundations
Instructional Psychology and Technology
Teacher Education

The principal purposes of the David O. McKay School of Education are: (1) preparing teachers for public and private schools; (2) providing graduate programs for the preparation of school principals, counselors, school psychologists, curriculum supervisors, speech-language pathologists, and master teachers; (3) offering research-based graduate programs; and (4) researching educational processes and issues.

Education Advisement and Certification Office

Linda Parker, Supervisor
120 MCKB
(801) 422-3426

The Education Advisement and Certification Office assists students from the beginning of the freshman year through graduation and teacher licensure. Students majoring in elementary education, early childhood education, special education, or communication disorders are advised concerning general education and major requirements, graduation requirements, and teacher licensure procedures.

Secondary education majors in social science receive their total program advisement from the Education Advisement and Certification Office. Other secondary education majors receive advisement in general education and major requirements from their respective college advisement centers. All majors receive licensure advisement in the Education Advisement and Certification Office.

Students are encouraged to visit their advisement centers on a regular basis.

Field Services Office

Margaret F. Ostlund, Director
120 MCKB
(801) 422-3426

The Field Services Office (FSO) assists students with student teaching and internship placements in local partnership schools and in schools selected for national and international programs. Students must make application and receive clearance for student teaching and internships by submitting a Student Teaching/Internship Application to Field Services, 120 MCKB. Forms are available on the Field Services Web site: http://www.education.byu.edu/fieldservices.

Career Placement Office—Education

Lisa Christensen, Supervisor
2400 WSC
(801) 422-6934
E-mail: education_placement@byu.edu

The Education Placement Office provides students with information about job search strategies as well as teaching opportunities throughout the United States and internationally. Students register with the Education Placement Office by going to the Web site http://educationplacement.byu.edu and following the instructions provided. Registrants gain access to many valuable services, including job search advisement; workshops; career strategies courses; and materials that tell how to prepare résumés, do well in an interview, and make the most of networking. Education Placement also regularly schedules recruiters and advertises job postings received from school districts across the nation.

Acceptance into Teacher Education Licensure Programs

Acceptance into teacher education licensure programs in the David O. McKay School of Education is based on a student's application and admission criteria, including a 2.85 GPA and an FBI background clearance. The David O. McKay School of Education seeks students who attain high educational standards and who evidence aptitude for teaching.

Secondary education majors are encouraged to take Sc Ed 276R in their sophomore year. Early childhood education and special education majors must complete their "Exploratory Experience in Education" (see advisor for details) before the final semester of their sophomore year, after which formal acceptance into the professional program in the David O. McKay School of Education normally occurs.

Withdrawals. Students who withdraw from the university or who otherwise interrupt their education (excepting spring and summer terms) must expect, on returning to the university, to meet the most recent requirements for teacher education licensure programs.

Transfer Students. Students who transfer to the David O. McKay School of Education from a two-year college, another university, or another college within BYU must meet the requirements for acceptance set forth above.

Preparation of Teachers

Candidates for all teacher preparation programs are required to complete an application that includes core criteria for each program. Applications are available online at http://www.education.byu.edu/ted for all teaching majors except special education.

Fingerprint and Background Check

All candidates for teacher licensure are required by state statute to be fingerprinted and pass an FBI background check before participating in required field experiences. Fingerprint clinics are held in the McKay Building in November and March. Allow from five to six weeks for fingerprints to be processed. FBI background clearance is valid for only three years. If clearance expires before graduation, candidates must repeat the fingerprinting and clearance process, including a new fee payment.

Failing to expunge a police record prior to the background check may result in a blocked registration while a panel reviews the charges. Candidates who cannot pass an FBI background check will be removed from the teacher education licensure program.

Early Childhood Teaching. Students who want to teach young children from prekindergarten through grade 3 should register in the Department of Teacher Education. Students receive advisement from the David O. McKay School of Education Advisement and Certification Office. Prior application and acceptance are required to enroll in the professional education course sequence. Students should plan their programs and course schedules with the designated advisors in the Education Advisement and Certification Office. Elementary education majors may elect to fullfill certification requirements for teaching P–K by completing a subject area emphasis in early childhood education. Contact the Education Advisement and Certification Office for further details.

Elementary School Teaching. Elementary education majors should check with their advisor in the Education Advisement and Certification Office for modifications to the program. An accepted application is required for admission to the elementary education licensure program. Applications must be completed before the final semester of the sophomore year. Applicants must demonstrate and maintain established standards for personal conduct and interpersonal skills as outlined in the program.

Students interested in elementary school teaching register in the Department of Teacher Education. Prior application and acceptance are required to take the professional sequence. Courses and prerequisites are listed in the Teacher Education section of this catalog. Students majoring in elementary education should plan their programs with the designated advisors in the Education Advisement and Certification Office.

Secondary School Teaching. Students who plan a career in secondary school teaching should register in the department of their academic major, except for social science majors, who register in the Department of Teacher Education. There is no major in secondary education per se, but students must complete professional education requirements as well as an academic teaching major or composite major. Some teaching majors require a teaching minor. Students should begin their professional preparation (Sc Ed 276R) during the sophomore year to facilitate scheduling the balance of the licensure program. For course listings and prerequisites, see the Department of Teacher Education section of this catalog. Students should plan their program with the designated advisors in their major advisement center.

Special Education Teaching. Students who plan to teach K–12 students with disabilities should apply through the Department of Counseling Psychology and Special Education. Application materials for the program are available online at http://www.education.byu.edu/cpse/undergradapp.pdf. Both an accepted application and successful completion of the "Special Education Exploratory Experience" packet are required for admission. These must be completed before the final semester of the sophomore year so that alternate educational plans can be made—without prolonging the time to graduation—if the student is denied admittance into the special education program.

Applicants must demonstrate and maintain established standards for personal conduct and interpersonal skills as outlined. The program includes multiple practica in the schools, and spring/summer enrollment is required. In addition to core courses, majors select an area of emphasis in either mild/moderate or severe disabilities. Students receive advisement from the Education Advisement and Certification Office.

Communication Disorders. This academic department prepares students to be communication specialists in schools, hospitals, rehabilitation centers, and other agencies and in private practice. Certification and licensure in Utah and in most other states, as well as by the American Speech-Language-Hearing Association, require a master's degree. Students interested in audiology or speech-language pathology should plan their program with the designated advisors in the Education Advisement and Certification Office.

Student Teaching. The culminating experience for students in teacher education is a student teaching assignment in a public school classroom under the supervision of mentor teachers and university supervisors. Students must plan their programs carefully to meet requirements for student teaching.

Internships. Internship appointments in a public school are available and may substitute for student teaching. Internship appointments are for a full year and carry a modest stipend. Interested students should contact their major supervisor or liaison.

Application for Licensure

The licensure of teachers is a function of the Utah State Office of Education (USOE). Requirements for Utah licensure are available in the Education Advisement and Certification Office. As licensure requirements are frequently updated, students should check the Web sites and attend the update sessions offered by the Department of Teacher Education to stay informed. Although such modifications are not retroactive, they may still affect the uncompleted portion of a student's program.

Prior to graduation, students are responsible to take the required Praxis II Content Test, to have the test score sent to BYU, to pay the state licensing fees, and to check that their fingerprint background clearance is still current. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements, contact the Education Advisement Center, 120 MCKB, (801) 422-3426. Graduation and licensure cannot be processed until these requirements have been completed.

Students who apply for Utah licensure must have the recommendation of the dean of the David O. McKay School of Education. Students are encouraged to plan their programs with the assistance of advisors in the Education Advisement and Certification Office so that they will be assured of meeting requirements for licensure.

Certification/Licensure in Other States. Under reciprocity agreements, Utah licensure is accepted in those states where such agreements are in effect. Specific information is available in the Education Advisement and Certification Office. Students who plan to certify/license in another state should contact that state for requirements beyond those in Utah as early in their programs as possible.

Religious Education

370 JSB
(801) 422-2735

Dean: Terry B. Ball, Professor, Ancient Scripture
Associate Dean: Richard D. Draper, Professor, Ancient Scripture
Associate Dean: Dennis A. Wright, Professor, Church History and Doctrine

Academic Departments and Curriculum Areas
- Ancient Scripture
- Church History and Doctrine

Research and Academic Support Areas
- Religious Studies Center

Purposes

The mission of Religious Education at Brigham Young University is to build the kingdom of God by teaching and preserving the doctrine of the gospel of Jesus Christ. We spread the light of the Restoration through classroom instruction, gospel scholarship, and outreach to the larger community.

Religious Education oversees the teaching of and research into scripture, doctrine, LDS and Christian church history, and world religions. We strive to create a learning environment and provide resources that are "spiritually strengthening, intellectually enlarging, and character building" and an educational experience that results in "lifelong learning and service" (The Aims of a BYU Education).

Religious Education seeks to spread the light of restored truth to Latter-day Saints and to those not of the LDS faith in three ways:

1. Instruction. We seek in Religious Education to find new ways and more effective ways to communicate timeless truths and to provide "a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued" (BYU Mission Statement). In general, we search for ways to enhance the educational experience and to build a faith in and a commitment to the restored gospel that is as stimulating and satisfying to the mind as it is soothing and settling to the heart.
2. Scholarship. The search for new truths and the quest to better understand well-known truths are central to the work of Religious Education. While the ultimate interpretation of doctrinal matters rests with apostles and prophets, we seek to discover historical backgrounds, provide cultural and linguistic details, and explore new avenues of understanding into our faith, history, and way of life.
3. Outreach. An important dimension of the work of Religious Education is outreach, the effort to teach, share, and discuss Mormonism in the larger non-LDS community of scholars and to foster understanding between men and women of all faiths.

Degrees Offered

Religious Education offers the master of religious education degree. For further information on this program, please contact Religious Education, 370 JSB, (801) 422-2735.

No other degree programs are offered in this area.

Scholarships and Awards

Graduate-level scholarships and awards are available to qualified students. Applications may be obtained from the Office of the Dean of Religious Education, 370 JSB.

Religious Studies Center

Richard N. Holzapfel, Director
167 HGB
(801) 422-2332
http://religion.byu.edu/rsc.htm

The Religious Studies Center (RSC) is the research and publication arm of Religious Education. It continues to pursue its original charter to encourage and sponsor serious, faithful, gospel-related scholarship and the ensuing publication of that scholarship. It fulfills the charge to help meet the university's commitment to religious studies and Religious Education's aim to teach and preserve the doctrine of the gospel of Jesus Christ. It also serves the greater Church through the publication of the works of Religious Education faculty and other scholars who have written important, timely, scholarly work of a faith-promoting nature.

To encourage and promote religiously oriented scholarship, the RSC awards grants and provides other financial assistance. It proactively reaches out to faculty to encourage research in specific areas and supports them in the publication of their findings. To accomplish this the RSC sponsors two faculty mentors, known as area directors, who oversee and fund research in Church history and ancient scripture.

Undergraduate Education

302 MSRB
(801) 422-3037/3038
www.byu.edu/ugrad_ed

Dean: Daniel J. Fairbanks, Professor, Plant and Animal Sciences
Associate Dean—General Education: John D. Lamb, Professor, Chemistry and Biochemistry
Associate Dean—Honors Program: Madison U. Sowell, Professor, Italian and Comparative Literature
Associate Dean—University Writing: Gary L. Hatch, Associate Professor, English
Associate Dean—First-Year Experience: R. Steven Turley, Professor, Physics and Astronomy
Assistant Dean: Carolyn Tuitupou

The Office of Undergraduate Education supervises and fosters essential university-wide elements of the baccalaureate: General Education, Honors Program, University Writing, and First-Year Experience (including Freshman Academy and New Student Orientation). These interrelated programs together promote and champion teaching and learning within an integrated *university* education. They aim to enrich the educational experience and to benefit the life of each undergraduate student.

General Education

The General Education (GE) components of the university core are overseen by an associate dean and administrative assistant. The Faculty General Education Council, consisting of faculty members from a variety of disciplines and chaired by the associate dean, regularly reviews general education courses and has final authority to decide which courses meet GE requirements. From time to time the associate dean, in consultation with the dean and the administration, initiates a broad-based, systematic evaluation of the GE program that may result in recommendations for changes.

General education requirements are set forth in the University Core section of this catalog. Beyond this and the more detailed listing in the current class schedule, the recommended source of information and advice about general education requirements is the individual college advisement center. The ten college advisement centers, together with the University Advisement Center (2500 WSC), provide assistance with registration, graduation requirements, policies and procedures, fields of study, changes of major, appeals, and many other aspects of academic life. The General Education Office, (350 MSRB) regularly consults with each advisement center on issues related to GE.

The General Education Office has responsibility for the university forum assemblies, which are designed to complement specific GE components of the university core or the idea of liberal education itself. A forum speaker may be nominated by any member of the university community—faculty, student, or staff. Nominations are evaluated by the Forum Committee, comprising faculty and student representatives, which recommends speakers to the university administration.

In an ongoing effort to strengthen the GE offerings in the university core, the General Education Office is engaged in faculty and course development—through the GE Academy on Teaching and Learning, faculty general education seminars, and grants for course development and enhancement. It also oversees faculty teaching awards for excellence in general education (including honors GE) courses: the Alcuin Fellowships and the Karl G. Maeser General Education Professorships. (For a description and list of current recipients, see the Maeser Fellowships and Alcuin Fellows section of this catalog.) General education courses are taught by faculty from throughout the university, and the General Education Office works closely with the colleges in a collaborative effort to foster a strong and engaging GE offering within the university core.

Honors Program

The Honors Program, open to all BYU students, complements the university's expansive educational agenda by providing the benefits of a small liberal arts learning community. These benefits include offering small classes with high-quality teaching and learning that challenge students to reach their highest potential; fostering a spirit of ongoing inquiry that includes undergraduate research in a mentored environment; and underscoring the importance of combining personal excellence, faithful discipleship, and meaningful service. See the Honors Program section of the catalog, which follows, for details concerning the program's requirements, offerings, benefits, administration, extra-curricular opportunities, and student-operated advisement center.

University Writing

University Writing promotes effective written, oral, and visual communication, helping students to succeed in their academic work and laying a foundation for lifelong learning. The Aims of a BYU Education states that undergraduates should acquire "language abilities that enable students to listen, speak, read, and write well; to communicate effectively with a wide range of audiences in one's area of expertise as well as on general subjects." University Writing purposes to accomplish these objectives through general education courses in First-Year Writing and Advanced Written and Oral Communication—offered both in departments and in the Honors Program—as well as by enhancing writing instruction in courses throughout the curriculum.

Through the Writing Across the Curriculum (WAC) program, University Writing helps faculty members integrate writing instruction within their content courses. Twice each year WAC conducts faculty seminars focusing on how to teach writing in various disciplines. WAC also trains teaching assistants as evaluators of writing; sponsors faculty workshops, often in conjunction with bringing writing experts to campus; and publishes a newsletter, *Writing Matters*. These efforts are supported by the Writing Fellows program. Writing Fellows is a discipline-based, peer-tutoring program that encourages and supports the development of mature student writing across the disciplines. University Writing also promotes student publication by encouraging faculty members to mentor students in research and writing and by supporting student academic journals.

Students have the opportunity to take part in any or all of these programs during their time at BYU to improve their abilities to communicate effectively in their own disciplines and across the curriculum.

First-Year Experience

The First-Year Experience Office (FYE) facilitates coordination of all university efforts that have an impact on new students. This includes helping new students develop habits of the mind to deepen and enrich their BYU experience, establish personal connections, find their way around campus, develop an awareness of available campus resources, and improve their sense of purpose and motivation by increasing their understanding of BYU's heritage and history. These efforts span the time between students' first contact with BYU and the end of their first year on campus.

Before students arrive at BYU, FYE coordinates projects that provide students and their parents with information through Web sites and e-mail. In collaboration with other university units, the office provides additional information and links about campus resources through mailings to new students (freshman and transfer), local firesides, and individual telephone contact. When students first arrive on campus, FYE—assisted by representatives from key university areas in a campuswide undertaking—coordinates New Student Orientation to facilitate personal contact, an introduction to campus locations, campus life activities, advisement, and mentoring by peers and university faculty and staff. Throughout the student's first year, FYE

provides additional transition assistance through Freshman Academy (see below), freshman seminars, peer mentoring, and other First-Year events. The seminars (Univ 101, together with Honrs 100) provide an opportunity for incoming students to have sustained engagement with a faculty member on an academic subject in a small-group context.

Course (Univ)

101. Freshman Seminar. (0.5–1.0:Arr.:0)
Aims of a BYU Education in a disciplinary context. Topics vary by section and semester.

Freshman Academy

Director: Patricia A. Esplin
Associate Director: Fred Pinnegar
156 TMCB
(801) 422-8176 or 1-877-890-5451
frac@byu.edu

Freshman Academy is a one-semester learning communities program in which a relatively small group of students takes the same set of two to five classes together. Open without additional charge to first-year students, Freshman Academy accepts students entering BYU during the summer, fall, or winter.

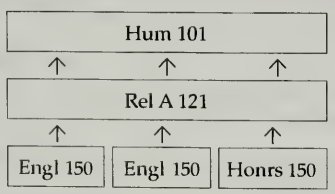
Participation in Freshman Academy gives students an immediate sense of community and integration into the life of the university. To provide academic support for first-year students, Freshman Academy recruits upperclassmen to serve as peer mentors for the students in each community. These peer mentors (most of them participants in the Academy when they were freshmen) encourage students to adopt good learning habits, help them form study groups, and model successful learning practices. They help students learn about the cultural, academic, spiritual, and social resources available on campus and provide support to the faculty in each learning community.

To further enhance the academic experience, Freshman Academy professors often collaborate to explore the relationships between their courses and to interact with students outside the classroom.

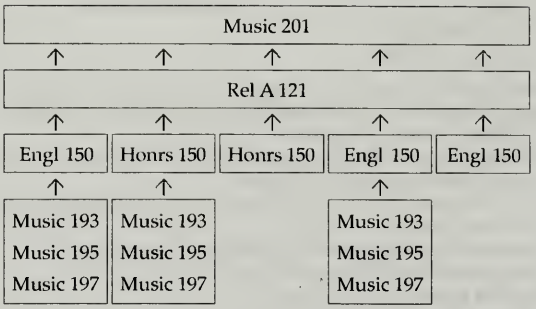
Because Freshman Academy allows students to register for several classes at once, participation reduces the difficulties many first-year students experience with the registration process. Students in learning communities have the opportunity to take university core, elective, and major-specific courses with other students who have similar interests.

The first figure below is an example of a learning community composed solely of courses meeting university core requirements; the second figure illustrates a learning community customized for students with a particular major in mind, combining university core and major courses:

Introduction to Humanities with First-Year Writing



Civilization 1 with First-Year Writing and Music Core



Freshman Academy students receive priority placement in on-campus housing, allowing them to live near other students in their learning community. These residency provisions make it easier for students to form study groups, work on projects, and develop long-lasting relationships. Contact Residence Life to apply for priority placement in Freshman Academy housing. In addition to class-related activities, Freshman Academy learning communities socialize, attend cultural events, and participate in service-learning projects together. All of these activities contribute to the individual student's achieving the academic and spiritual aims of a BYU education.

Participation in a Freshman Academy learning community helps students become aware of the responsibilities they owe to themselves and to others. Involvement in Freshman Academy is a serious commitment, and the program expects students to be true to their word, to attend and participate in classes, to work collaboratively with fellow students, to respect the dignity and selfhood of others, and to respond to the spiritual and temporal needs of individuals and communities. By interacting with others in these ways and taking responsibility for their own learning, Freshman Academy students develop the attributes of responsible and engaged citizens.

Incoming freshmen can participate in Freshman Academy regardless of previous academic preparation. The composition of the program reflects that of the entire freshman class in the distribution of majors and academic preparation. Freshman Academy students interested in the Honors Program may participate in communities designed to fulfill honors requirements or in communities that offer individual honors courses. Freshman Academy benefits every type of student, and all first-semester students are encouraged to participate. For the most current information, please visit http://academy.byu.edu.

Prestigious Non-BYU Scholarships and Fellowships

The Office of Prestigious Scholarships and Fellowships assists students in finding and applying for major externally funded scholarships and fellowships for undergraduate and graduate study (e.g., National Science Foundation, Fulbright, Rhodes, Goldwater, Truman, etc.) and scholarships for research opportunities, summer programs, and non-BYU study abroad programs. Students are encouraged to review the online information describing each scholarship at www.byu.edu/scholarships. For more information contact Carolyn Tuitupou in 102B MSRB or e-mail prestigious_scholarships@byu.edu.

School of Accountancy

Kevin D. Stocks, Director
540A TNRB, (801) 422-4613
E-mail: kevin_stocks@byu.edu

Richard S. Dalebout, Associate Director
560A TNRB, (801) 422-2228
E-mail: dalebout@byu.edu

Marriott School of Management Advisement Center
460 TNRB, (801) 422-4285
Internet: marriottschool.byu.edu/advisement

Admission to Degree Program

The degree program in the school carries special enrollment limitations. Please see the Marriott School of Management Advisement Center for specific details.

The Discipline

Accounting has been called the language of business in which accountants control, analyze, and report the financial resources of an enterprise. A good understanding of accounting principles and practices can serve as the basis for a career in any business field.

Career Opportunities

Accountants provide critical input and guidance in profit-seeking organizations, service and charitable organizations, educational institutions, government, public accounting firms—indeed, any organization that exists today.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Accounting

For help or information on the undergraduate program, please see the Marriott School of Management Advisement Center.

For information on management degrees, see Management section of this catalog.

Graduate Programs and Degrees

MAcc Professional Accountancy
MAcc Tax

For more information see the current Marriott School of Management School of Accountancy Web site at http://marriottschool.byu.edu/soa and the BYU 2007–2008 Graduate Catalog.

General Information

Undergraduate Application Requirements

All new students entering the undergraduate accounting program commence their study at the beginning of the fall semester. Admission into the undergraduate accounting program is based on consideration of the following:

1. The applicant's overall GPA and GPA in the following preparatory courses: Acc 200, 210, M Com 320, I Sys 201
2. The applicant's personal statement
3. Comments from professors
4. A review of the overall academic record of the applicant

Admission Policies

The following policies apply in making admission decisions for each fall semester cohort of students:

1. Admission to the undergraduate accounting program is by online application filed directly with the School of Accountancy. Applications are filed at www.marriottschool.byu.edu/soa/ugrad.cfm. Notice of admission decisions is given online.
2. Each year the last day to apply to commence study in the fall semester is the last business day in June at 4:30 p.m. A student may, however, apply for fall semester admission as early as November 1 in the preceding year. In most cases admission decisions are made on a monthly basis.
3. Repeating the four preparatory courses (Acc 200, 210, M Com 320, I Sys 201) to improve grades for purposes of admission is strongly discouraged. For these four courses: (1) a minimum 3.0 GPA is required, and (2) a grade of B or better is required in Acc 200 and 210. The preparatory courses must be completed at the time of application.
4. The accounting program is designed for entry at the beginning of a student's junior year. Moreover, at the end of the junior year, many students immediately commence graduate studies. Therefore, a student entering the accounting program must have substantially completed general education requirements and the following introductory courses: Econ 110, Math 119, Stat 221. Exceptions may be allowed, but it should be understood that it is difficult to complete such courses after entry into the accounting program.
5. Potential applicants who will transfer from other schools are encouraged to take Acc 210 at BYU and include an ACT/SAT score with their application, if the test was taken. Grades transferred from other schools are discounted.
6. The School of Accountancy reserves the right to allow exceptions in the admission process where it is deemed necessary to admit the most qualified students.

BS Accounting (70–71 hours*)

This is a limited-enrollment program requiring departmental acceptance. Please see the information above and/or the college advisement center for information regarding requirements for application to this major.

Major Requirements

1. No more than 6 credit hours of transfer credit will be accepted toward the upper-division major requirements. No transfer credit will be accepted for the Junior Core or Integrated Management Core courses.

2. Demonstrate a knowledge of computer skills, including PowerPoint and spreadsheet analysis. Students may demonstrate PowerPoint and spreadsheet skills with either a minimum grade of B in an equivalent transfer course or a P grade in I Sys 100 and 101.
3. Complete the following Pre-Accounting courses:
   Acc 200, 210.
   I Sys 201 (including 100, 101).
   M Com 320.

   Note: These four courses are used in determining admission to the undergraduate accounting program.
4. Complete the following introductory courses:
   Econ 110.
   Math 119 (or 112).
   Stat 221.

   Note: Where possible, it is recommended that these courses be taken before entering the Junior Core.
5. Complete the following Junior Core courses:
   Acc 401, 402, 403, 404, 405, 406.
6. Complete the following Integrated Management Core courses:
   Bus M 341, 361, 390, 402.
   Org B 321.

   Note: If completing the MAcc, these courses will be replaced by the MSM Core.
7. Complete the following after Acc 401, 402, 403, 404, 405, 406:
   Acc 241.
   Acc 453 or ManEc 453.
   Bus M 498.

   Note: If completing the MAcc, BusM 498 should not be taken.
8. Complete Marriott School exit survey online.

*Hours include courses that may fulfill university core requirements.

Accounting (Acc)

Undergraduate Courses

Note: Students enrolled in nonbusiness programs requiring or recommending Acc 201 or 202 should enroll in 200.

200. Principles of Accounting. (3:3:0)
Financial and managerial accounting principles. Basic accounting statements, processes, and management applications. Open to all students.

201. Principles of Financial Accounting. (3:3:1) Independent Study only.
First course in concepts and methods underlying financial statements.

202. Principles of Managerial Accounting. (3:3:1) For transfer students only. Prerequisite: Acc 201.
Second course in the elementary series covering managerial problems and control of business operations.

210. Principles of Accounting 2. (3:3:0) For Marriott School of Management students only. Prerequisite: Acc 200.
Additional issues in financial and managerial accounting. Review of issues related to balance sheet accounts, performance evaluation and capital budgeting.

241. Business Law in the Environment. (3:3:0) F, W, Sp, Su Prerequisite: Marriott School of Management major status.
Introduction to legal principles and institutions affecting business.

Note: SOA 300-level classes are available to Marriott School of Management and certain other selected majors.

320. Introductory Income Tax. (3:3:0) For nonaccounting majors. Prerequisite: Acc 200.
Measurement and concepts of taxable income.

343. Business Law. (3:3:0) Prerequisite: Acc 241 or equivalent.
The law relating to negotiable instruments, secured transactions, real property, wills and trusts, and bankruptcy.

Note: All 400-level classes (except 440) are limited to accounting SOA majors.

401. Business and Accounting Information Systems. (4:4:0) Prerequisite: admission to SOA.
Inputs, processing, outputs, and files of several transaction-processing subsystems. Foundation for understanding internal control. Variety of tools used to design, create, or document accounting information systems (AIS) to achieve organizational objectives.

402. Cost and Managerial Accounting. (4:4:0) Prerequisite: admission to SOA.
Cost and managerial accounting topics, including production processes, product costing, cost behavior analysis with regression, differential costing, capital budgeting, throughput accounting, performance measurement, and budgeting.

403. Intermediate Financial Accounting 1. (4:4:0) Prerequisite: admission to SOA.
Financial reporting issues for balance sheet, income statement, and cash-flow statement. Revenue recognition; accounting for long-term assets, investment securities, and derivative instruments; consolidation.

404. Financial Accounting 2. (4:4:0) Prerequisite: admission to SOA.
Accounting for receivables and inventory. Major reporting issues associated with liabilities and stockholders' equity. Introduction to computing basic and diluted earnings per share.

405. Fundamentals of Taxation. (4:4:0) Prerequisite: admission to SOA.
Tax principles applicable to business entities and individuals; tax compliance issues; tax planning as part of overall strategic planning process for businesses and individuals.

406. Financial Statement Auditing. (4:4:0) Prerequisite: admission to SOA.
Introduction to framework providing financial statement assurance; integrating accounting and business knowledge with concepts from other disciplines such as statistics and law; framework applied to major business cycles, providing specific knowledge in financial statement auditing.

440. Corporate Financial Reporting. (3:3:0) For nonaccounting majors. Prerequisite: Acc 200, 210, Bus M 301.
Accounting principles of corporate financial reporting. Judgments managers make preparing financial statement information. How complexities, alternatives, and impacts affect completed financial statements.

453. Money, the Financial System, and the Economy. (3:3:0) Prerequisite: Acc 401, 402, 403, 404, 405, 406.
Applications of industry analysis and microeconomic principles in the macroeconomic environment that influences individuals and financial intermediaries that transact in money and credit markets.

Graduate Courses

For 500- and 600-level courses, see the current Marriott School of Management School of Accountancy Web site at http://marriottschool.byu.edu/soa and the BYU 2007–2008 Graduate Catalog.

School of Accountancy Faculty

Professors

Albrecht, W. Steve (1977) BS, Brigham Young U., 1971; MBA, PhD, U. of Wisconsin, 1973, 1975.

Gardner, Robert L. (1978) BA, Brigham Young U., 1969; MBA, BS, U. of Utah, 1975, 1976; PhD, U. of Texas, Austin, 1979.

Glover, Steven M. (1994) BA, PhD, U. of Washington, 1987, 1994.

Prawitt, Douglas F. (1993) BS, MAcc, Brigham Young U., 1988, 1988; PhD, U. of Arizona, 1993.
Radebaugh, Lee H. (1980) BS, Brigham Young U., 1968; MBA, DBA, Indiana U., Bloomington, 1973.
Randall, Boyd C. (1974) BS, JD, MBA, U. of Utah, 1965, 1967, 1968; PhD, U. of Minnesota, 1972.
Skousen, K. Fred (1970) BS, Brigham Young U., 1965; MAS., PhD, U. of Illinois, 1966, 1968; CPA, 1968.
Spilker, Brian C. (1993) BS, MAcc, Brigham Young U., 1987, 1987; PhD, U. of Texas, Austin, 1993.
Stewart, Dave Nelson (1980) BA, MAcc, Brigham Young U., 1977, 1977; PhD, U. of Florida, 1980.
Stice, Earl K. (1998) BS, MAcc, Brigham Young U., 1981, 1982; MS, PhD, Cornell U., 1986, 1988.
Stice, James D. (1988) BS, MAcc, Brigham Young U., 1984, 1984; PhD, U. of Washington, 1988.
Stocks, Kevin D. (1983) BS, MAcc, Brigham Young U., 1978, 1978; PhD, Oklahoma State U., 1981; CPA, 1980.
Swain, Monte R. (1991) BS, MAcc, Brigham Young U., 1987, 1987; PhD, Michigan State U., 1991.

Associate Professors

Barrick, John A. (2001) BS, MAcc Brigham Young U., 1991, 1991; PhD, U. of Nebraska, Lincoln, 1998.
Black, Ervin L. (2000) BA, MBA, Brigham Young U., 1981, 1984; PhD, U. of Washington, 1995.
Burton, F. Greg (2001) BA, MAcc, Utah State U., 1984, 1987; PhD, U. of South Carolina, 1994.
Christensen, Ted E. (2000) BS, San Jose State U., 1989; MS, Brigham Young U., 1991; PhD, U. of Georgia, 1995.
Dalebout, Richard S. (1975) BA, Brigham Young U., 1968; JD, U. of Utah, 1971.
Summers, Scott (1999) BS, MAcc, Brigham Young U., 1990; PhD, Texas A&M U., 1995.
Wilks, Jeff (2000) BS, Brigham Young U., 1995; MS, PhD, Cornell U., 1999, 2000.
Worsham, Ronald G. (1994) BS, MAcc, Brigham Young U., 1985, 1985; PhD, U. of Florida, 1994.
Zimbelman, Mark F. (1999) BS, Brigham Young U., 1984; PhD, U. of Arizona, 1996.

Assistant Professors

Charles, Shannon L. (2001) BS, Western Oregon State Coll., 1989; MBA, Oregon State U., 1995; PhD, Oklahoma State U., 2000.
Heninger, William G. (2001) BS, MAcc, Brigham Young U., 1989, 1989; PhD, U. of Georgia, 1997.
Johnson, Peter M. (2002) BS, MS, Southern Utah U., 1991, 1992; PhD, Arizona State U., 2003.
Paik, Gyung H. (2000) BA, Seoul National U., Korea, 1986; MA, Brigham Young U., 1988; MBA, U. of Utah, 1995; PhD, U. of Illinois, 2000.
Peterson, Fredric G. (1973) BA, MA, PhD, U. of Utah, 1964, 1966, 1973.

Teaching Professors

Cottrell, David M. (1992) BS, MAcc, MHA, Brigham Young U., 1984, 1984, 1985; PhD, Ohio State U., 1992.
Livingstone, Donald H. (1995) BS, Brigham Young U., 1966; CPA, 1970.
Nemrow, Norman R. (1993) BS, MAcc, Brigham Young U., 1978, 1979; CPA, 1981.

Associate Teaching Professors

Budd, Cassy (2005) BS, Brigham Young U., 1990; MA, Utah State U., 2002.
Hobson, L. Scott (2003) BS, MAcc, Brigham Young U., 1983, 1983; CPA 1985.

Emeriti

Cameron, James B. (1969) BS, U. of Utah, 1956; MBA, U. of California, Los Angeles, 1958; CPA, 1960; PhD, Montana State U., 1967.
Garrison, Ray H. (1966) BS, MS, Brigham Young U., 1960, 1961; CPA, 1962; DBA, Indiana U., Bloomington, 1966.
Hardy, John W. (1969) BS, Brigham Young U., 1964; MBA, Indiana U., 1966; PhD, U. of Texas, Austin, 1972; CPA.
Hubbard, Ernest Dee (1959) BS, Utah State U., 1952; MBA, U. of Utah, 1959; PhD, U. of Washington, 1967.
Palmer, Glen O. (1964) BS, MAcc, Brigham Young U., 1961, 1963; CPA, 1963.
Skousen, Karl M. (1958) BS, MS, Brigham Young U., 1944, 1957; CPA, 1957; PhD, Michigan State U., 1962.
Smith, Jay M. (1971) BS, MS, Brigham Young U., 1953, 1960; PhD, Stanford U., 1965; CPA, 1958.
Smith, Robert J. (1949) BS, Brigham Young U., 1948; MBA, Northwestern U., 1949; CPA, Illinois, 1949; CPA, Utah, 1950; DBA, Indiana U., 1957.
Sonderegger, Emory O. (1960) BS, MS, Brigham Young U., 1956, 1957; CPA, 1963.
Streuling, G. Fred (1976) BA, MAcc, Brigham Young U., 1963, 1964; PhD, U. of Iowa, 1971; CPA, Utah, 1965; CPA, California, 1966.
Taylor, Dale H. (1963) BA, MA, Brigham Young U., 1951, 1953; CPA, 1955; PhD, Northwestern U., 1963.
White, J. Morgan (1967) BS, Brigham Young U., 1951; CPA, 1953; MS, Brigham Young U., 1958.
Woodfield, Leon W. (1960) BS, MBA, U. of Utah, 1956, 1957; CPA, CPA, 1959, 1960; DBA, Michigan State U., 1965.

Aerospace Studies (Air Force ROTC)

Colonel Gordon J. Jacobs, Chair
380 ROTC, (801) 422-2671

Admission to Program

Students must be accepted by the department into the program.

The Discipline

The Air Force Reserve Officer Training Corps (AFROTC) is an educational program designed to provide students the opportunity to become Air Force officers while completing requirements for an undergraduate or graduate degree. Four-year and three-year programs are available for both men and women.

Career Opportunities

Officer in the United States Air Force.

General Information

Textbooks, Uniforms, and Allowance. All textbooks, uniforms, and uniform accessories are furnished by the Air Force, in addition to the tax-free allowance of $350 to $400 per month furnished to those in the Professional Officer Course (POC) program.

Air Force ROTC Scholarship Program. Full tuition assistance is available to students in the three-year or four-year program based on merit. By law, scholarship recipients must be under age thirty-one as of December 31 of the calendar year during which commissioning is scheduled. The scholarship includes tuition, fees, textbook allowance, and $250 per month for freshmen, $300 per month for sophomores, $350 per month for juniors, and $400 per month for seniors. Contact the department for application procedures.

Foreign Language Express Scholarships. In order to meet critical Air Force officer accession goals, the Air Force is now offering Foreign Language Express Scholarships. The program is currently open to students who will graduate December 2007 through August 2009 and who are majoring in or have an emphasis in one of twenty-three critically needed languages. Please contact the department for more details.

Field Training. All cadets wishing to enter the Professional Office Corps (last two years) must attend a field training camp during the summer prior to their junior year. This training gives an increased understanding of the Air Force mission and operation. Students receive practical experience in leadership and management while residing on an Air Force base. At field training students receive career orientation, junior officer training, aircraft and aircrew indoctrination, survival skills, physical training, and weapons experience and learn about the function of an Air Force base.

Medical care, housing, food, and uniforms, as well as transportation to and from the training base, are provided. Approximately $500 in pay is received for four-week training and $625 for six-week training.

Extracurricular Activities. Each Air Force ROTC student will be able to participate in a variety of extracurricular activities, including the Arnold Air Society, the color guard, and the honor guard. Selected cadets may also participate in summer programs such as the career-field shadow program or airborne training (parachute jump school).

LDS Missions. Students who desire to serve a Church mission should do so between their freshman and sophomore years. This will facilitate entrance into the advanced course. Scholarship students may have their scholarship held while they fulfill a mission as long as they do so before entering the advanced program.

Fifth-Year Cadets. Four-year-program students in Air Force ROTC who are in a five-year university program are allowed a year of completed status after their senior AFROTC courses. Out-of-phase students and those who will be student teaching should consult with the department chair.

Discipline. Disciplinary training in the cadet corps is formulated and administered by the student officers. Air Force ROTC students are civilians and are not subject to military law.

Veterans. A veteran seeking a commission through Air Force ROTC may have part or all of the freshman and sophomore program waived. Allowances are paid in addition to G.I. Bill benefits.

Program Requirements

Four-Year Program

The more popular and preferred program is the traditional Four-Year Program. Interested freshmen register for aerospace studies in the fall term, enrolling in aerospace studies courses in the same manner as for other college courses. There is *no military obligation* for the first two years of Air Force ROTC unless on an Air Force ROTC scholarship. During this time students learn more about the Air Force and the historical development of air power. After completing the first two years, known as the General Military Course (GMC), students may *compete* for entry into the last two years, the Professional Officer Course (POC). If accepted, students will attend a four-week summer field training encampment between their sophomore and junior years before entering the POC. Cadets in the POC study leadership, management, and national defense policy while receiving a nontaxable subsistence allowance of $350 for juniors and $400 for seniors each month.

Three-Year Program

Students entering the program as sophmores can "dual enroll" in both the Aeros 100 and 200 academics simultaneously. These students only enroll in the 200-series labs. If accepted, students will attend a four-week field training the next summer.

Qualifications

1. Be a United States citizen.
2. Be a full-time student.
3. Be eighteen years of age, or seventeen years of age with parent's or legal guardian's consent.
4. Be physically qualified.
5. Be of good moral character.
6. Be in good academic standing.
7. Successfully pass the Air Force Officer Qualifying Test.
8. Be interviewed and selected by a board of Air Force officers.
9. Complete all commissioning requirements as follows:
   a. Pilot or navigator candidate: Complete before age twenty-nine so as to enter undergraduate pilot/navigator training before age thirty.
   b. Scholarship recipient: Complete before age thirty-one in eligible year of commissioning.
   c. Nonscholarship recipient: Complete before age thirty-five.

Required Courses

1. General Military Courses: complete the following:
   Aeros 100, 101, 110, 111, 200, 201, 210, 211.
2. Professional Officer Courses: complete the following:
   Aeros 300, 301, 310, 311, 400R, 401R, 410, 411.

Minor Aerospace Studies (14 hours)

Students desiring aerospace studies as a minor must complete the 14 hours of POC course work and the Air Force ROTC requirements, as well as qualify for a commission in the United States Air Force.

Aerospace Studies (Aeros)

Undergraduate Courses

100, 101. Leadership Laboratory—Freshmen. (0.5:0:2 ea.) F, W
Basic fundamentals of military leadership—drill, courtesy, planning, and organizing at various levels of responsibility.

110. The Air Force Today. (1:2:0) F Prerequisite: concurrent enrollment in Aeros 100.
Development, organization, and core values of the U.S. Air Force, emphasizing the foundations of officership.

111. Aerospace Defense, General Purpose, and Support Forces. (1:2:0) W Prerequisite: concurrent enrollment in Aeros 101.
U.S. Air Force Major Command structure and the origins of the Air Force.

200, 201. Leadership Laboratory—Sophomores. (0.5:0:2 ea.) F, W
As listed for Aeros 100/101. Increased emphasis on performance level.

210. The Developmental Growth of Air Power. (1:1:0) F Prerequisite: concurrent enrollment in Aeros 200.
Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change through the early 1960s.

211. The Developmental Growth of Air Power. (1:1:0) W Prerequisite: concurrent enrollment in Aeros 201.
Development of various concepts of air power employment, emphasizing factors that have prompted research and technological change from Vietnam to the present.

300, 301. Leadership Laboratory—Juniors. (0.5:0:2 ea.) F, W
As listed for Aeros 100/101. Students perform as cadet officers. Emphasis on leadership development.

305R. Leadership Laboratory—Honor Guard. (1:0:3 ea.) F, W Prerequisite: instructor's consent.
Fundamentals of military leadership and drill with the M-1 rifle; emphasizes need for response to vested authority, with opportunity to develop confidence, military bearing, and other interpersonal skills; students perform as cadet leaders.

310. Management and Leadership. (3:3:0) F Prerequisite: concurrent enrollment in Aeros 300.
Writing, speaking, and listening as communication skills; management concepts; responsibilities and ethics for an Air Force junior officer.

311. Management and Leadership. (3:3:0) W Prerequisite: concurrent enrollment in Aeros 301.
Principles of leadership, problem solving, decisions, discipline, and human relations. Emphasis on career planning as an Air Force junior officer.

399R. Academic Internship: Leadership Intern Program. (4:0:0) Sp, Su Recommended: Aeros 201 or 301.
Air Force ROTC field leadership training course. Provides advanced fundamentals of military leadership, planning, organizing, and team building at various levels of responsibility. Enrollment limited to Air Force ROTC cadets.

400R, 401R. Leadership Laboratory— Seniors. (0.5:0:2 ea.) F, W
As listed for Aeros 100/101. Senior cadets perform in leadership positions in planning and conducting all activities of the cadet corps.

410. National Security Affairs. (3:3:0) F Prerequisite: concurrent enrollment in Aeros 400R.
Civilian control of military, civil-military interaction, the forming of defense strategy. Military profession; Russia, Europe, and East Asia regional studies.

411. National Security Affairs. (3:3:0) W Prerequisite: concurrent enrollment in Aeros 401R.
Africa, Middle East, and Latin American regional studies; military operation other than war; military justice system; officer professional development.

Aerospace Studies Faculty

Professor
Jacobs, Gordon J. (2006) BS, Baptist Coll., 1982; MBA, St. Martins, 1988.

Assistant Professors
Drollette, Edward H. (2005) BS, U. of Maryland, 1991; MS, Air Force Institute of Technology, 2002.
Hopkinson, Russell H. (2006) BS, Brigham Young U., 1986; MS, Embry Riddle Aeronautical University, 1994.
Millett, Timothy (2006) BS, Utah State U., 1992; MS, Troy State U., 2002.
Shaw, Christopher (2006), BS, U. of New Mexico, 1998.
Walker, Christopher (2004) BS, Brigham Young U., 1998; MS, U. of Alaska, Anchorage, 2003.

Afrikaans

See Germanic and Slavic Languages.

Agronomy and Horticulture

See Plant and Animal Sciences.

Akan

See Center for Language Studies.

Albanian

See Center for Language Studies.

Arabic

See Asian and Near Eastern Languages.

American Heritage

100. American Heritage. (3:3:0) F, W, Su Honors also.
Synthesis of American constitutional and economic principles, and patterns of historical development.

American Studies

American Studies Office
4095 JFSB

Kerry Soper, Coordinator
3037 JFSB, (801) 422-1242

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

The American Studies degree program is open enrollment.

The Discipline

The American Studies major examines the sweep of American experience, society, culture, and civilization from a variety of viewpoints—literature, history, gender, humanities, regions, politics, ethnic groups, geography, art, economics, religion, and folklore—based in core courses designed to examine the American experience from a variety of standpoints. Majors are encouraged to develop particular skills in writing; literary criticism; historical research; and social, political, and economic analysis. The program provides not only rich interdisciplinary experience but also exposure to a variety of excellent scholars and teachers.

Career Opportunities

On graduation, American Studies students are usually qualified to enter graduate and professional schools (for law, MBA, MPA, PhD), government or community service, teaching, or advanced graduate studies in the liberal arts, including American studies, American civilization, American culture, American history, and American literature.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	American Studies
Minor	Western American Studies

Students should see their college advisement center for help or information concerning the undergraduate programs.

BA American Studies (45 hours*)

Major Requirements

1. Students can complete the Advanced Written and Oral Communication requirement by taking Engl 311, 312, 314, 315, or 316 according to individual academic direction. Those interested in graduate work are urged to take the Hist 200, 490 option.
2. Majors should begin course work in the major by taking Am St 303 fall semester of the sophomore or (at latest) junior year.
3. Complete the following prerequisite courses:
   Pl Sc 110.
   Econ 110.
   Hum 261, 262.
4. Complete the following:
   Am St 303.
5. Complete ten courses (30 hours) from the following:
   Am St 200, 360, 390R (twice only), 395.
   ArtHC 345, 365.
   Econ 274.
   Engl 336, 358R, 392, 395R.
   Geog 250.
   Hist 366, 380, 395.
   Hum 420R, 425R, 430R, 440R, 460R, 490R.
   Pl Sc 320, 321, 322.

   Note: Engl 358R and 395R, as well as the humanities courses, must be topics in an American subject.

   Note: Course substitutions may be made only with written, prior permission of the American Studies coordinator unless they are on the approved list.

   Note: Students may substitute 3 credit hours of Washington, D.C., seminar credit for one American Studies elective.

*Hours include courses that may fulfill university core requirements.

Minor Western American Studies (18 hours*)

Major Requirements

1. Complete the following:
   Am St 200.
2. Complete one course from three of the following four clusters:
   Natural Environment
   Biol 150.
   Geol 101.
   InBio 215, 225.
   Human Heritage
   Hist 360, 361.
   Social Environment
   Anthr 345, 346, 350.
   Econ 274.
   Soc 327.
   Arts and Literature
   Engl 364, 368, 392.
   Span 365.
3. Complete additional elective courses to make a total of 18 hours. Electives may be chosen from the courses listed above that have not been used, from the additional courses listed below, or from topical courses on Western themes offered through academic departments or the Honors Program.
   Anthr 530, 535.
   ArtHC 345.
   Geog 306.
   Hist 363, 364, 366, 382, 385, 386, 387, 394.
   Pl Sc 317.
   Rel C 342, 343.
   Span 461.

*Hours include courses that may fulfill university core requirements.

American Studies (Am St)

Undergraduate Courses

200. The American West as a Region. (3:3:0)
Geography, natural history, history, and cultures of the American West.

303. Studies in the American Experience. (3:3:0)
Social and intellectual life in American culture from the colonial period to the present.

360. Film in American Culture. (3:3:0)
Selected readings, lectures, and analysis of specific motion pictures as social documents, reflecting different facets of the American experience.

390R. Topics in American Studies. (3:3:0 ea.)
Multidisciplinary study of a carefully defined problem in American culture. Topics vary.

395. Theories and Methods in American Studies. (3:3:0)
Prerequisite: Am St 303.
Readings/discussion seminar introducing students to theories, definition, and practice of American Studies.

Ancient Scripture

See Religious Education in Academic Departments, Degrees, and Courses section of this catalog.

Animal and Veterinary Science

See Biology, Integrative Biology, and Plant and Animal Sciences sections of this catalog.

Anthropology

David P. Crandall, Chair
800 SWKT, (801) 422-3058

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All undergraduate degree programs in the Department of Anthropology are open enrollment.

The Discipline

Anthropology's central aims are to describe, interpret, and make meaningful human behavior in sociocultural systems. It also seeks to explain the similarities and differences in human behavior patterns among all peoples and cultures, both in the present and the past. Social and cultural anthropology study human society in the present, using participant-observation, interviewing, and other techniques to understand the full round of life in a single culture, a subculture, or a multicultural system. Archaeology provides methods for learning about the world's peoples who are no longer living; thus it is an important part of the anthropological family of special skills and interests.

Career Opportunities

Distinctive contributions are made by both anthropology and archaeology majors, and therefore jobs are available wherever social and cultural differences or social system complexity create difficulties. Social services, businesses, schools, development projects, medicine, and law all offer significant careers, and recent concern with environmental protection has opened up others. University teaching and research positions are limited in growth, but highly qualified students can find positions after obtaining the PhD degree from first-rank schools.

For archaeology majors, both legal and societal interest in understanding and preserving the past have resulted in increased job opportunities in state and national agencies required to observe recent preservation laws and in private corporations serving this end.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Anthropology
	Emphases:
	Archaeology
	Sociocultural
BA	Anthropology (Sociocultural double major)
Minors	African Studies
	Anthropology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Anthropology

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

1. Each student wishing to major in anthropology should arrange through the department office to counsel with a faculty advisor and prepare a proposed sequence of study. Following this, the student should meet with the department chair for final approval of the program.
2. Undergraduate students are allowed some, but not excessive, specialization.
3. All degrees are in the field of anthropology.

Special Opportunities for Field Study

The department offers a number of unusual curriculum and field study opportunities. Students interested in Pacific Island studies are encouraged to spend a semester or two at BYU— Hawaii, where this area of study is well represented. Selected courses are regularly counted toward BYU's major. Consult with the department chair or your faculty advisor about equivalences.

The department offers several field school opportunities. Archaeology students complete their requirement in the field school typically held in conjunction with an ongoing, local (Utah) research project and occasionally in more exotic settings (Jordan).

BA Anthropology: Archaeology Emphasis (48.5 hours*)

Major Requirements

1. Complete the following:
   Anthr 101, 110, 150, 205, 206, 215, 300, 309.
2. Complete 3 hours from the following:
   Anthr 311, 314, 351, 378, 385, 390R, 580, 590R.
3. Complete 3 hours from the following:
   Anthr 350, 355, 365, 372, 374, 380, 390R, 530, 535, 562, 564, 565, 566, 572, 574, 590R.
4. Complete 9 hours from the following:
   Anthr 402, 412, 414, 430, 431, 432, 434, 436, 437, 438, 440, 441, 450, 490R, 511, 512, 575.
5. Complete an additional 3 hours of electives from section 3 or 4 above.
6. Complete the following:
   Anthr 454R.
7. Complete 6 hours of the following:
   Anthr 455R.
8. Complete 2 hours of the following:
   Anthr 456R.

*Hours include courses that may fulfill university core requirements.

BA Anthropology: Sociocultural Emphasis (51.5 hours*)

Major Requirements

1. Complete the following:
   Anthr 101, 110, 150, 205, 206, 247, 300, 309.
2. Complete 6 hours from the following:
   Anthr 311, 314, 317, 320, 326, 330, 335, 340, 343, 345, 346, 390R.
3. Complete 6 hours from the following:
   Anthr 402, 412, 414, 430, 431, 432, 436, 438, 440, 490R.
4. Complete 3 hours from the following:
   Anthr 434, 437, 441, 450, 511.

5. Complete an additional 3 hours of electives from section 3 or 4 above.
6. Complete the following:
   Anthr 442, 495, 499R.

*Hours include courses that may fulfill university core requirements.

BA Anthropology (Sociocultural Double Major)

(39.5 hours*)

The 33-hour sociocultural major is designed to accommodate the varying interests of students from a range of other disciplines, but it is only available to students completing an additional major in another field. Its purpose is to allow students with other majors to add the perspectives that anthropology is uniquely qualified to provide.

Major Requirements

1. Complete all requirements of a primary major. Double counting courses between primary major and anthropology will not be allowed.
2. Complete the following:
   Anthr 101, 150, 205, 206, 309, 442, 495, 499R.
3. Complete 6 hours from the following:
   Anthr 317, 320, 326, 330, 340, 343, 345, 346, 390R.
4. Complete 6 hours from the following:
   Anthr 402, 430, 431, 432, 434, 436, 437, 438, 440, 441, 450, 490R, 511.
5. Complete an additional 3 hours from sections 3 or 4 above.

*Hours include courses that may fulfill university core requirements.

Minor African Studies (18–21 hours*)

The Discipline

The African Studies minor is designed to complement several majors. The minor features language competence, with options in several languages used in Africa, as well as courses in history and social sciences. Several options are available, and students interested in this minor are encouraged to consult with one of the coordinators of the program to find the best options to apply to their major.

Minor Requirements

1. Complete one of the following language/humanities components:
   a. French
      Fren 321, 341, 456R.
   b. Swahili
      FLang 101R, 102R, 201R.
   c. Afrikaans
      Afrik 101, 102, 201.
   d. A combination of French, Swahili, Afrikaans, upper-division Portuguese, or other language component as approved by the program coordinator. (The coordinator is Professor Chantal Thompson.)
2. Complete three courses from the following social science component (a maximum of two courses per discipline; some of these courses may be offered only once every other year):
   Anthr 330.
   EdLF 362.
   Engl 358R.
   Geog 385.
   Hist 249, 250.
   IAS 397R.
   Pl Sc 352.

   Other courses may or may not be applicable, depending on the amount of African content therein. Approval of the program coordinator, therefore, is required. Courses that may contain significant African content at times include the following:
   Anthr 390R, 430, 431, 432, 490R.
   Geog 493R.
   Hist 390R.
   Org B 551.
   Pl Sc 472.

*Hours include courses that may fulfill university core requirements.

Minor Anthropology (16 hours)

Minor Requirements

Complete 16 hours of department courses, with no more than two courses in addition to Anthr 108R from lower-division courses offerings.

Anthropology (Anthr)

Undergraduate Courses

101. Social/Cultural Anthropology. (3:3:0) Honors also.
Aspects of society and culture: kinship, beliefs, economy, and political order among peoples worldwide. Methods and perspectives used in social/cultural anthropology.

103. Archaeology Field Trip. (1:2:0) F 1st blk.
Archaeology field trip to Four Corners. Meet weekly prior to trip. Students responsible for food and camping costs. Limited enrollment.

108R. Anthropological Films. (1:0:2 ea.) F, W
Examination of other cultures through ethnographic or archaeological film. Can be taken separately or concurrently with Anthr 101 or 110.

110. Introduction to Archaeology. (3:3:0) Honors also.
Review of great archaeological discoveries about the ancient world. Overview of world prehistory.

150. Anthropology Career Preparation. (0.5:1:0) F
Overview of anthropology major and graduation requirements; preparing for senior thesis sequence; career opportunities; and graduate school application process.

205. Foundations of Anthropological Theory. (3:3:0) F, W
Prerequisite: Anthr 101.
Ideas from Marx, Weber, Durkheim, and Steward studied for a secure foundation for understanding the antecedents of current theory.

206. Current Anthropological Theory. (3:3:0) F, W
Important current theoretical frameworks in anthropology.

207. Experiments in Ancient Technology. (3:1:2)
Processes by which tools and other objects were produced anciently; experimental reproduction and use of ancient tools.

215. Introduction to Archaeology: Method and Theory. (3:3:0) W
Field and analytic methods and their relevance to data acquisition; use of theory and the relation of theory to methods.

247. Applied Anthropology. (3:3:0) W
Anthropological principles and methods applied to business, education communication, development projects, and health sciences.

280. Archaeology and the Scriptures. (3:3:0) Evening Classes only.
The Bible and the Book of Mormon compared with archaeological findings on early civilizations.

300. Biological Anthropology. (3:3:0) W, Sp
Relationships between human biology, environment, social structure, and culture. Concepts and data on race, primates, evolution, population genetics, growth, and sociobiology.

301. Human Osteology. (2:1:2)
Identification and treatment of skeletal material found in archaeological excavations.

309. Language in Culture and Society. (3:3:0) F, W, Sp
Sociocultural categories and processes as expressed through, and determined by, language. Semiotics: language as sign system. Ethnosemantics, syntactic analysis, translation problems, ethnography of speaking/communication.

311. Museums and Cultures. (3:3:0) F
Role of museums in society. Analyzing museum content, use, and sociology. On-site visits to area museums.

312. Intercultural Communication. (3:3:0) F, W Independent Study only.
Communication processes as affected by proxemic, kinesic, linguistic, social, institutional, worldview, and value differences and other aspects of culture. Seminar/workshop: theory, research methods, applications.

314. Museum Registration and Legal/Ethical Issues. (3:3:0) W Prerequisite: Anthr 311.
Managing museum collections: cataloging, loans, ethics, legal issues, object handling, basic object conservation. Practical experience working with museum objects.

317. Native Peoples of North America. (3:3:0) W even yr.
Indian groups at the time of the European arrival; social organization, beliefs, values, economy, and adaptation to environment.

320. Anthropology of Europe. (3:3:0) W even yr.
Europe's role in the anthropological imagination; ethnographies of contemporary European populations; themes; nationalism/postnationalism/transnationalism; postsocialism, postcolonialism, immigration; ethnic identity and cultural politics; the commodification of culture. Regional emphasis may vary.

326. Central American Society. (3:2:Arr.) W
History, culture, society, and life among peoples of Mexico and Central America.

330. Peoples of Africa. (3:3:0) W
Political, economic, and social organization, family life, language, worldview, religion, ritual, artistic expression, ecological adaptation, and contemporary development issues among rural and urban sub-Saharan peoples.

335. Peoples of India. (3:3:0) W
Society and culture on Indian subcontinent. Stratification, kinship, marriage, religion, politics, economics.

340. Peoples of the Middle East. (3:3:0) F odd yr.
Ecology, social organization, and beliefs of nomadic, rural, and urban groups between western Africa and Pakistan.

343. Chinese Culture and Society. (3:3:0) F
Cultural and social institutions of traditional and modern China, including Mainland China, Taiwan, Hong Kong, or other areas of Chinese impact.

345. American Culture. (3:2:Arr.) F
Unity and diversity in U.S. life. Social/cultural change processes illustrated and analyzed. Anthropological study of complex cultures. Seminar-type course involves substantial reading, writing, discussion.

346. Anthropology of Mormonism. (3:3:0) W odd yr.
Intensive analysis of Mormon society and culture using a range of anthropological perspectives.

350. Archaeological Cultures of North America. (3:3:0) W odd yr.
Cultural developments of North American Indians (Canada, U.S., and northern Mexico) before Columbus.

351. Archaeology and the Bible. (3:3:0) F even yr., Su odd yr.
Setting and context of the Bible as clarified and supplemented from archaeology, history, and related studies. Archaeological methods.

355. Mesoamerican Archaeology. (3:2:Arr.) F
Cultural-environment bases of ancient civilizations in Mexico and Central America. Olmec, Maya, Toltec, and Aztec cultures.

365. South American Archaeology. (3:3:0)
Archaeological history of South America: Peru, Bolivia, and Ecuador.

372. Ancient Mayan Writing 1. (3:3:0) F odd yr.
Nature and content of Mayan hieroglyphic writing, from A.D. 100 to 1600. Methods of decipherment, introduction to textual analysis, and application to interpreting Mayan language, art, world view, and society. Literacy and the Mesoamerican background of Mayan script.

374. Ancient Mayan Writing 2. (3:3:0) Prerequisite: Anthr 372.
Advanced study of Mayan hieroglyphic writing. Guided workshop focusing on inscriptions, rituals, dynastic history, and linguistic records from major Mayan cities. Archaeological setting and preparation of technical commentaries emphasized.

378. Near Eastern Archaeology. (3:2:Arr.) W
Peoples and culture history in Mesopotamia, Syria, Palestine, Egypt, 3500–500 B.C. Substantial reading, writing, discussion.

380. Historical Archaeology. (3:2:Arr.)
Archaeological study, excavation, and restoration of sites like Nauvoo and Williamsburg. Substantial reading, writing, and discussion.

385. Ancient Peoples and Cultures of Europe: The Origins of European Civilization. (3:3:0)
European culture and archaeology from initial settlement to Vikings. Agriculture, political organization, urban settlement, population movement, early astronomy, religious development. Bronze and Iron Ages, Roman expansion.

390R. Special Topics in Regional Anthropology. (1–3:Arr.:0 ea.) On dem.
Subjects related to a particular area or people. Offered when unique opportunities or needs arise.

402. Quantitative Methods for Anthropology. (3:3:0) F odd yr.
Quantitative methods in archaeology and sociocultural anthropology, including methods of organizing, exploring, and presenting data, probability, and statistical inference.

412. Museum Collections Management. (3:3:0) F Prerequisite: Anthr 311, 314.
Instruction and practice in aspects of managing museum collections: writing catalogs, processing donations, preserving objects.

414. Museum Projects. (3:3:0) W Prerequisite: Anthr 311, 314.
Supervised experience in a museum working with exhibitions, public programs, or research.

420. Language and Cultural Insight. (3:3:0) W
Students will demonstrate language competence and increase cultural awareness using an "uncommon language." Interview, analysis, and writing skills emphasized. Document will be in uncommon language with translation and report in English.

430. Moral and Ritual Institutions. (3:3:0) F
Anthropological approaches to religion; its content and relation to other social institutions in societies ranging from gatherers to industrialists.

431. The Family, Marriage, and Kinship. (3:3:0) W
Nature of kinship; parent-child, sibling, grandparental relationships. Genealogical basis of society: family, lineage, clan, kindred organization. Marital status; in-law relations; joking and avoidance behavior; divorce.

432. Economic and Political Institutions. (3:3:0) F
Connections between wealth and power; political and legal systems in state and nonstate societies; expansion of capitalism and technology into remote global regions.

434. Medical Anthropology. (3:3:0) W even yr. Recommended: Anthr 247.
Interactions between culture and health in comparative perspective, emphasizing social, historical, and ecological determinants.

436. Symbolic Anthropology. (3:3:0) W
Social use and understanding of semiotics, signs, symbols, and other meaningful forms as critically constitutive of culture.

437. Men, Women, and the Culture of Gender. (3:3:0) F odd yr. Recommended: Anthr 247.
Gender roles across culture relative to health, ethnicity, economic development, kinship, war, etc.

438. Social Stratification and Complex Societies. (3:3:0)
Anthropological consideration of organized social inequality, focusing on class, caste, gender, and ethnicity.

440. Small-Scale Societies. (3:3:0)
Ethnographic and archaeological studies of band and tribal societies (hunter-gatherers and simple farmers) from around the world.

441. Anthropology of Development. (3:3:3) W even yr.
Theory, practice, and research methods regarding the anthropological study and resolution of poverty, disease, malnutrition, displacement, and inadequate educational opportunities.

442. Ethnographic Skills. (3:2:Arr.) F, Sp
Methods, rationale, limitations, and ethical issues of participant observation, interviewing, quantitative measurement, and other procedures of ethnographic fieldwork. Local field project.

450. Seminar in Anthropology of Education. (3:3:0) W odd yr. Prerequisite: Anthr 101, 405.
Anthropological theories of and qualitative research in child rearing, enculturation, cognition, informal education, schools, literacy, multicultural and multilingual education, and cultural transmission and acquisition.

454R. Field School Preparation. (1:1:1 ea.) W Prerequisite: major status.

455R. Field School of Archaeology. (1–6:0:Arr. ea.) Sp Prerequisite: Anthr 454R; major status.
Training and experience in excavation at a BYU-sponsored dig.

456R. Lab Skills for Anthropology. (2–6:Arr.:Arr. ea.) F Prerequisite: Anthr 455R; major status.
Analytical and laboratory techniques as part of a BYU-sponsored archaeological project.

490R. Special Topics in Theory and System. (3:3:0 ea.) On dem.
Subjects related to anthropological theory or the operation of social systems. Offered when unique opportunities or needs arise.

495. Ethnographic Field Project. (6:0:Arr.) Sp Prerequisite: Anthr 442.
Conduct field work, maintain field notes, and write a paper incorporating both descriptive and analytic components.

496R. Academic Internship: Research. (1–3:Arr.:Arr. ea.) Prerequisite: supervising instructor's consent.
Field or library research.

497. Directed Readings. (3:Arr.:0) Prerequisite: major status; supervising instructor's consent.
Reading 2,500 pages on a stated topic.

499R. Senior Thesis. (3:3:0 ea.) F Prerequisite: Anthr 495.
Supervised analysis and write-up of data generated during field project.

500-Level Graduate Courses (available to advanced undergraduates)

Undergraduate BYU anthropology students may enroll in some of the following courses if they have completed 30 hours in their major.

501. Archaeological Systematics. (3:3:0) F
Major contributions and current development in archaeological method and theory.

502. Quantitative Methods for Anthropology. (3:3:0) F odd yr.
Methods of organizing, exploring, and presenting data, probability, and statistical inference.

510. History of Archaeology. (3:3:0) W odd yr.
Historical approach to development of archaeological knowledge, method, and theory, emphasizing North America and individual contributions.

511. Museums and Cultures. (3:3:0) F even yr.
Museums in society. Cultural foundations of museum content and sociology of museum use. Analyzing museum studies literature with on-site visits to area museums.

512. Heritage Resource Management. (3:3:0) F Prerequisite: admittance into graduate program in archaeology or certificate program in museum practices.
Legal and ethical issues for practicing archaeologists. Preservation law, collections law, public archaeology, Native American issues, and careers in archaeology and museums.

522. Museum Practices and Technologies. (3:3:Arr.) F odd yr.
Core museum disciplines: collections management, curation, education, exhibition, and conservation. Supporting technologies: database, digital photography, Web design, etc. Career paths.

524. Museology: Curation and Writing. (3:3:Arr.) F even yr. Prerequisite: admission to certificate in museum practices program.
Professional practices supporting the educational, research, and reporting functions of museums, emphasizing museum writing leading to publication, cataloguing, policy writing, exhibition conceptualization, etc.

525. Museum Registration and Collections Management. (3:3:Arr.) W even yr.
Managing anthropological collections: object-handling, object-tracking, accessioning, deaccessioning, collections databases, loans, valuating collections, conservation environments, ethics, and NAGPRA and other laws relating to museums.

526. Museum Exhibitions and Programming. (3:1:8) W odd yr. Prerequisite: admission to certificate in museum practices program; Anthr 524.
Instruction and practica in all aspects of exhibition development. Current thought and literature in museum education with practica for application.

530. Great Basin Archaeology. (3:3:0) W even yr.
Overview of ethnography, history of research, and prehistory of the Great Basin culture area. Current issues in archaeological research emphasized.

535. Southwest Seminar. (3:3:0) W odd yr.
Overview of ethnography and prehistory of American Southwest. Current issues in archaeological research emphasized.

550. (Anthr-Ling) Sociolinguistics. (3:3:0) W even yr.
Research and theory in anthropological linguistics and sociolinguistics.

551. (Anthr-Ling) Anthropological Linguistics. (3:3:0) F even yr.
Language in culture and society: development, typology, and description.

562. Formative Mesoamerica. (3:3:0) F odd yr.
Topics and issues concerning beginnings and development of Mesoamerican civilizations. Mexican and Mayan antecedents of classic Mayan civilization and culture.

564. Classic Mayan Civilization. (3:3:0) W odd yr.
Topics and issues concerning archaeological and cultural aspects of classic Mayan civilization and society.

565. Mayan Ceramic Analysis. (3:3:0) W even yr.
Current approaches to classification and analysis of archaeological ceramics, particularly Maya Lowland pottery. Laboratory study of actual pottery collections from the Maya area.

566. Mayan Ethnohistory. (3:3:0)
Topics and issues of cultural change, colonization, and documentation of change processes in the Mayan region, from postclassic period and independence from Spain.

572. Ancient Mayan Writing 1. (3:3:0)
Nature and content of Mayan hieroglyphic writing, from A.D. 100 to 1600. Methods of decipherment, introduction to textual analysis, and application to interpreting Mayan language, art, world view, and society. Literacy and the Mesoamerican background of Mayan script.

574. Ancient Mayan Writing 2. (3:3:0) Prerequisite: Anthr 372 or 572.
Advanced study of Mayan hieroglyphic writing. Guided workshop focusing on inscriptions, rituals, dynastic history, and linguistic records from major Mayan cities. Archaeological setting and preparation of technical commentaries emphasized.

575. Writing Systems. (3:3:0)
Comparative study of writing around the world, emphasizing ancient scripts. Topics include: linguistic concepts; social, political, and economic function of early script; ancient literacy; development and extinction of script.

580. Near East Seminar. (3:3:0) F even yr.
Current issues in Near Eastern archaeological research.

590R. Special Topics. (3:3:Arr. ea.) On dem.
Special topics in archaeology or museum studies.

596. Museum Projects. (3:0:8) Sp odd yr. Prerequisite: admission to certificate in museum practices program; Anthr 524, 526.
One or more supervised museum projects, such as producing an exhibition, developing educational materials, conducting inventory, or accessioning collections.

599R. Academic Internship: Federal Agency or Museum/Collections Repository. (1–6:0:0 ea.) Prerequisite: prior approval; completion of all course work for certificate in museum practices (may be taken concurrently with Anthr 596).
Earning credit while employed in federal agency archaeology (BLM, U.S. Forest Service, etc.); or 320 hours in collections-holding institution (sixteen weeks half-time or eight weeks full-time).

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Anthropology Faculty

Professors
Clark, John E. (1990) BS, MA, Brigham Young U., 1976, 1979; PhD, U. of Michigan, 1994.
Forsyth, Donald W. (1979) BA, MA, Brigham Young U., 1971, 1972; PhD, U. of Pennsylvania, 1979.
Hawkins, John P. (1974) BS, Brigham Young U., 1970; MA, PhD, U. of Chicago, 1972, 1978.
Janetski, Joel C. (1983) BA, Brigham Young U., 1965; MA, PhD, U. of Utah, 1977, 1983.

Associate Professors
Crandall, David P. (1994) BA, Brigham Young U., 1986; MPhil, DPhil, Oxford U., England, 1989, 1993.
Johnson, David J. (1987) BA, MA, PhD, U. of Utah, 1972, 1982, 1987.

Assistant Professors
Allison, James R. (2004) BA, MA, Brigham Young U., 1985, 1990; PhD, Arizona State U., 2000.
Hartley, Julie (2001) BA, Brigham Young U., 1992; MA, Utah State U., 1994; PhD, Columbia U., 2001.

Adjunct Faculty
Andrus, Edwin K. (1981) BA, MA, Brigham Young U., 1971, 1973.
Buonforte, Richard H. (1990) BA, Brigham Young U., 1982; MA, MPhil, Yale U., 1984, 1985.
Olsen, Steven L. (1992) BA, Brigham Young U., 1975; AM, PhD, U. of Chicago, 1978, 1985.

Emeriti
Matheny, Ray T. (1964) BA, MA, Brigham Young U., 1960, 1962; PhD, U. of Oregon, 1968.
Sorenson, John L. (1971) BS, MA, Brigham Young U., 1951, 1952; MS, California Inst. of Technology, 1952; PhD, U. of California, Los Angeles, 1961.

Armenian

See Center for Language Studies.

Art

See Visual Arts.

Asian and Near Eastern Languages

Robert A. Russell, Chair
3064C JFSB, (801) 422-6405

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Asian and Near Eastern Languages are open enrollment. Some special limitations apply for teaching minors.

The Discipline

The many countries of Asia and the Near East are among the oldest civilizations in the world. The study of the languages and cultures of these nations gives students access to some of the richest and most varied traditions of thought, belief, and behavior to be found in the world. A large percentage of the vast, essentially non-Christian segment of the world's population resides in these two zones: Asia—with its diverse heritage of belief in Hinduism, Buddhism, Taoism, Confucianism, and other systems of thought—continues to retain its "exotic" image for most Westerners, even though many nations in the region are at the forefront of contemporary politics and economics. The Near East, birthplace of Christianity, Judaism, and Islam, remains a little-understood, often stereotyped area of considerable economic, strategic, and religious importance today.

The languages of these regions are themselves generally difficult, with complex writing systems that require diligent study. But exposure to these languages and the cultures they express will enable students to look at the world from new perspectives and deepen their understanding of peoples whose history and practices are widely divergent from their own.

Courses in the department equip students with verbal and written facility in the languages of their chosen area, whereas linguistics courses offer an understanding of how the languages are structured and acquired. A study of the literature reveals old and sophisticated traditions no less important than that of English or any other major language.

Majors are available in Chinese, Japanese, and Korean. Students can obtain a minor in Arabic and Hebrew. Each major discipline is briefly described below.

Chinese (Cantonese and Mandarin)

The study of Chinese accesses the literature, thought, culture, and society of the world's largest population with the longest cultural continuum; moreover, since the civilizations of Japan, Korea, and Vietnam are founded on traditional Chinese Confucianism, a major in Chinese opens up much of the wider world of modern Asia. You will communicate in spoken and written Mandarin, gain skills in analyzing and appreciating both traditional and modern literature, acquire effective research strategies, and learn to write clearly and persuasively. All the personal enrichment and interpersonal understanding that results from a liberal arts education in the humanities is offered through the study of Chinese.

Japanese

Although Japan's economic successes are widely recognized, few people know much about the rich cultural heritage of Japan in literature, thought, painting, music, and the other arts. The study of Japanese language and literature will introduce you to many of the major aspects of that heritage while providing the kind of training in language and social skills that will prepare you to undertake careers in a wide variety of fields. The study of Japanese at the university level is aimed at providing you with advanced language skills and a sophisticated understanding of Japan and its people acquired through an examination of the literature and culture.

Korean

Korean is a difficult language, and at BYU we emphasize reading and writing the language as well as speaking and listening. Basic course work emphasizes linguistic skill and the language's literary value and tradition.

Note: Instruction is also regularly available in Hebrew and Arabic.

Career Opportunities

Students who major or minor in the languages and cultures of Asia and the Near East will find that, as will any other humanities-centered course of study, they have been well provided with tools to communicate both in the target language and in English and have broadened and deepened their knowledge of the region of their choice. Career options are many and varied for such students, but those who do not plan to continue on in the academic study of the language are strongly urged to consider a second major or a strong minor in a practical field that can be combined with their language skills. In the competitive world of today, language ability alone no longer provides the competitive advantage it once offered on the job market. Students are urged to consult the College of Humanities Advisement Center, Job Search Assistance, and their academic advisors for the best ways to make use of their language as they begin to seek employment.

Chinese

Chinese majors have all of the advantages of the liberal arts graduate (who claims effective communication and interpersonal skills) with the added edge of knowing the language and culture behind a leading world economy. Therefore, graduates enter the work force in a wide variety of occupations, such as journalism, insurance, business, travel, investment, and government service. They not only are marketable as trained linguists, translators, and cultural advisors, but are vigorously recruited as personnel managers and business representatives by companies with overseas interests. Graduates are also highly competitive in applying to professional schools for medicine, dentistry, law, and business.

Japanese

In recent years, graduates from the Japanese major at BYU have gone on to law, engineering, computer, or MBA programs, while others have continued on to medical school. A few have pursued graduate work in a variety of academic fields at some of the most prestigious universities in the country. Others have gone directly to work in government service, in the military, and in American or Japanese business firms where their language ability and cultural background are in high demand.

Korean

Most of the jobs available for students with a Korean major are in government (NSA, CIA, FBI), etc., but Korean majors also have all the advantages of a liberal arts degree. Many of our graduates go on to professional schools, law, business, or medicine. Korean is an excellent complement, either as a major or minor, to studies in prelaw, political science, accounting, English, international relations, and many other majors available on campus. Korean is an important language in the world of diplomacy and defense, as well as the world of international business. (Korea is the eighth largest trading partner of the U.S.) Our graduates have been hired by the U.S. government and by U.S., international, and Korean businesses. They work in technical areas as well, involving everything from computers to broadcasting to medicine.

General Information

The Department of Asian and Near Eastern Languages strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific

educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Chinese
BA	Japanese
BA	Korean
Minors	Arabic
	Chinese
	Chinese Teaching
	Hebrew
	Japanese
	Japanese Teaching
	Korean

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Language Acquisition (Arabic, Chinese, Japanese, or Korean)

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Language Credit by Examination

Credit by examination is available for many lower-division courses of the above-listed languages. Enrollment in an advanced class is prerequisite to taking the examination.

The following languages are *not* taught on a regular basis but may be offered if sufficient demand exists. Credit by examination is available for some of the Near Eastern languages listed below.

Akkadian
Aramaic
Egyptian
Persian (Farsi)
Syriac
Turkish
Ugaritic

Arabic

Minor Arabic (18–35 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Arab 101, 102, 201, 202.
2. Complete the following (normally as part of a BYU Semester Abroad program):
   Arab 211R, 300, 302, 311R, and one additional Arabic language course.
3. Complete the following:
   Hum 242.

*Hours include courses that may fulfill university core requirements.

Arabic (Arab)

Undergraduate Courses

100. Introduction to Arabic. (1:1.5:0)
Beginning Arabic. Offered at the Jerusalem Center for Near Eastern Studies only.

101. First-Year Arabic. (4:5:0)
Basic skills of spoken and written Arabic. Suggested first class for students learning Arabic.

102. First-Year Arabic. (4:5:0) Prerequisite: Arab 101.
Second-semester Arabic. Basic language skills, both spoken and written.

201. Second-Year Arabic. (4:5:0) F, Su Prerequisite: Arab 102 or equivalent experience.
Significantly expanding proficiency in Modern Standard Arabic and increasing conversational repertoire.

202. Intermediate Arabic. (4:5:0) W, Su Prerequisite: Arab 201 or equivalent experience.
Continuation of Arab 201.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Arab 102 or equivalent experience.
Intermediate spoken Arabic.

221R. Standard Arabic Tutorial. (2:2:0 ea.) F, W, On dem.
Readings, listening and writing activities, and discussion in Arabic designed to maintain vocabulary and fluency while waiting for Study Abroad.

222R. Spoken Arabic Tutorial. (2:2:0 ea.) F, W, On dem.
Conversation with a native speaker; movies, plays, and other written sources of colloquial Arabic.

223R. Arabic Grammar Review. (2:2:0 ea.) F, W, On dem.
Tutorial review of first- and second-year Arabic grammar, with readings and other activities that illustrate the principles discussed.

300. Advanced Modern Standard Arabic. (4:5:0) Prerequisite: Arab 202.
Advanced work in reading, writing, listening, and speaking.

302. Newspaper Arabic. (4:5:0) Prerequisite: Arab 300.
Extensive reading of Arabic newspapers and magazines, with appropriate vocabulary building.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Arab 201, 211R, or equivalent experience.
Advanced conversation skills.

331. Spoken Arabic. (4:5:0) Prerequisite: Arab 311R or equivalent experience.
Intensive study of the spoken language.

361. Introduction to Modern Arabic Literature in Translation. (3:3:0)
Reading and discussion of representative sample of modern Arabic short stories, novels, plays, and poetry. All readings in English.

362. Introduction to Medieval Arabic Literature in Translation. (3:3:0)
Reading and discussion of representative sample of medieval Arabic literature. All readings in English.

377. Arabic Language Teaching Methods. (3:3:0) W
Language acquisition theories and instructional practices specific to Arabic language classrooms at various levels. Lectures, demonstrations, microteaching.

421R. Fourth-Year Arabic Writing Tutorial. (2:2:0 ea.) F, W, On dem.
Essay and letter writing in Arabic.

422R. Advanced Spoken Arabic. (2:2:0 ea.) F, W, On dem.
Movies, plays, and other texts in spoken Arabic.

423R. Current Events in Arabic. (2:2:0 ea.) F, W, On dem.
Current events from online oral and written news sources, including high-level discussions of causes and context, with written analyses and oral presentations.

424R. Modern Arabic Literature. (2:2:0 ea.) F, W, On dem.
Readings in modern Arabic literature.

425R. Classical Arabic Texts. (2:2:0 ea.) F, W, On dem.
Quran, Hadith, Sira, Adab.

426R. Advanced Arabic Grammar. (2:2:0 ea.) F, W, On dem.
The morphology and syntax of modern Arabic, including advanced vocabulary study.

490R. Independent Readings. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Independent readings of Arabic materials.

500-Level Graduate Course (available to advanced undergraduates)

531R. Advanced Topics in Arabic. (1–3:5:0 ea.) Prerequisite: instructor's consent.
Advanced studies in Arabic language and literature.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Chinese

BA Chinese (41–53 hours*)

Major Requirements

1. Complete the following prerequisite courses (or equivalents): Chin 101, 102, 201.
2. Complete the following: Chin 202, 301, 302, 321, 322, 495.
3. Complete one course from the following: Chin 343, 344.
4. Complete one course from the following: Chin 325, 326.
5. Complete three courses from the following: Chin 441, 442, 443, 444.
6. Complete 6 additional hours required from upper-division Chinese. It is mandatory that students consult with their advisor to determine supporting courses appropriate to professional goals.

*Hours include courses that may fulfill university core requirements.

Minor Chinese (22–39 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents): Chin 101, 102, 201, 202.
2. Complete the following: Chin 301, 302, 441.
3. Complete one course from the following: Chin 443, 444.
4. Complete one course from the following: Chin 321, 322.
5. Complete one course from the following: Chin 343, 344.
6. Complete one additional class above 301.

*Hours include courses that may fulfill university core requirements.

Minor Chinese Teaching (26–42 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents): Chin 101, 102, 201, 202.
2. Complete the following: Chin 301, 302, 326, 377, 441.
3. Complete one course from the following: Chin 321, 322.
4. Complete one course from the following: Chin 443, 444.
5. Complete one course from the following: Hist 339R, 340.

*Hours include courses that may fulfill university core requirements.

Chinese—Mandarin (Chin)

Undergraduate Courses

101. Beginning Mandarin. (4:5:2)
Basic grammar, vocabulary building, speaking.

102. Beginning Mandarin. (4:5:2) Prerequisite: Chin 101 or equivalent.
Continuation of Chin 101.

112. Beginning Chinese Reading. (2:2:0) Prerequisite: equivalent of one year spoken Mandarin skills.
Chinese writing system, reading, and basic composition using Chinese characters.

200R. Chinese Calligraphy. (2:0:2 ea.) Prerequisite: Chin 101 or equivalent.
Training in the art of writing Chinese characters with a brush.

201. Intermediate Mandarin. (4:5:1) Prerequisite: Chin 102.
Advanced grammar, the writing system, reading and writing, speaking.

202. Intermediate Mandarin. (4:5:1) Prerequisite: Chin 201.
Advanced grammar, the writing system, reading and writing, speaking.

211R. Intermediate Conversation. (2:2:1 ea.) Prerequisite: Chin 102.
Emphasis on fluency and vocabulary building.

301. Third-Year Mandarin. (4:5:1) Prerequisite: Chin 202.
Discourse grammar, advanced reading.

302. Third-Year Mandarin. (4:5:0) Prerequisite: Chin 301.
Advanced-level Mandarin skills, especially media discourse and reading.

311R. Advanced Conversation. (2:2:1 ea.) Prerequisite: Chin 202 or equivalent.
Emphasis on sophistication of speech.

321, 322. Selected Readings of Modern Chinese. (3:3:0 ea.) Prerequisite: Chin 302.
Complements overall language competency through reading modern texts selected from a wide range of styles and genres.

325. Structure of Chinese. (3:3:0) Prerequisite: Chin 202.
Sound, syntax, meaning, and word structure of Mandarin Chinese and its implications to problems of learning Chinese.

326. Introduction to Chinese Linguistics. (3:3:0) Prerequisite: Chin 202.
Dialectology, phonology, syntax, semantics, discourse, morphology, and sociolinguistics.

327. Chinese Translation and Interpretation. (3:3:0) Prerequisite: Chin 301.
Translation techniques, with practice in oral and written translation either from Chinese to English or from English to Chinese.

343. Chinese Literature in Translation—Poetry. (3:3:0)
All readings in English; topics vary.

344. Chinese Literature in Translation—Prose. (3:3:0)
All readings in English; topics vary.

345R. Chinese Culture. (3:3:0)
Selected topics in traditional, modern, and contemporary Chinese culture.

346. Introduction to Chinese Philosophy. (3:3:0) W Alt. yr.
Introduction to native Chinese philosophies of Confucianism and Taoism. Readings in translation of *Lun-yu, Meng-tsu, Lao-tzu,* and *Chuang-tzu*. Themes include self, society, and cosmos.

347. Business Chinese. (3:3:0) Prerequisite: Chin 301 or instructor's consent.
Introduction to terminology and format of business communication in Chinese, emphasizing both reading and writing of various forms of business communication.

377. Chinese Language Teaching Procedures. (3:3:0) Prerequisite: Chin 325 or 326 or instructor's consent.
Acquiring knowledge and skills specific to teaching Chinese as a foreign language. Conducted in Chinese and English.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Chin 202.
On-the-job cultural and/or language experience.

441, 442. Classical and Literary Chinese. (3:3:0 ea.) Prerequisite: for 441: Chin 301 or equivalent; for 442: Chin 441.
Introduction to syntax and stylistic patterns.

443. Modern Chinese Literature. (3:3:0) Prerequisite: Chin 321 or 322.
Authors, themes, and writing styles of the period 1915–1949. Texts in Chinese.

444. Contemporary Chinese Literature. (3:3:0) Prerequisite: Chin 321 or 322.
Contemporary literature of Taiwan and the PRC. Texts in Chinese.

445R. Chinese Poetry. (3:3:0) Prerequisite: Chin 343, 441.
Readings in Chinese poetry. Topics vary from classical and modern poetry. Various themes and genres introduced, emphasizing shi poetry. Texts in Chinese.

490R. Individual Study in Chinese. (1–3:Arr.:0 ea.) Prerequisite: project approval by instructor.
Assignments to fit individual needs of the advanced student.

495. Senior Seminar for Majors. (2:2:0) Prerequisite: advanced knowledge of Chinese.
Research methods in Chinese language sources. Paper required.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: coordinator's and department's consent.
On-the-job cultural and/or language experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Chinese—Cantonese (Cant)

Undergraduate Courses

101. First-Year Cantonese. (4:5:0)
Basic language skills.

102. First-Year Cantonese. (4:5:0)
Basic language skills.

201. Second-Year Cantonese. (4:5:0) Prerequisite: Cant 102 or foreign residence experience.
Grammatical patterns and vocabulary of spoken and written Cantonese.

202. Second-Year Cantonese. (4:5:0) W Prerequisite: Cant 201 or equivalent.
Intermediate to advanced skills in reading, writing, listening, and speaking.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Cant 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

Hebrew

Minor Hebrew (18–28 hours*)

Minor Requirements

1. Complete one of the following prerequisite options (or equivalents):
   Modern Hebrew track:
   a. Complete the following:
      Heb 101, 102.
   b. Complete one course from the following:
      Heb 132, 134.

   Ancient Hebrew track:
   a. Complete one course from the following:
      Heb 131, 133.
   b. Complete one course from the following:
      Heb 132, 134.
   c. Complete the following:
      Heb 102.

      Note: Students should complete Heb 131/133 and Heb 132/134 *before* Heb 102.
2. Complete the following:
   Heb 201.
3. Complete one course from the following:
   Heb 313, 331.
4. Complete one course from the following:
   Heb 421, 431.
5. Complete one course from the following:
   Heb 202, 312.
6. Complete 4 hours from the following:
   ANES 363.
   Heb 311R, 411R, 432R, 441.

*Hours include courses that may fulfill university core requirements.

Hebrew (Heb)

Undergraduate Courses

100. Introduction to Hebrew. (1:1.5:0)
Beginning Hebrew; offered at the Jerusalem Center for Near Eastern Studies only.

101, 102. First-Year Hebrew. (4:5:2 ea.)
Modern Hebrew as spoken in Israel today.

131, 132. First-Year Biblical Hebrew. (4:5:0 ea.) Independent Study also.
Old Testament Hebrew. Provides foundation in grammar and vocabulary; reading Hebrew prose texts in Bible.

133, 134. Honors Hebrew and the Old Testament. (4:4:0 ea.)
Rapid survey of biblical Hebrew. Must be taken in conjunction with specified Honors section of Rel A 301 and 302.

201. Second-Year Modern Hebrew. (4:5:0) Prerequisite: Heb 102 or equivalent.

202. Intermediate Readings. (4:4:0) Prerequisite: Heb 201 or equivalent.

311R. Intermediate Conversation. (2:2:0 ea.) Prerequisite: Heb 201.

312. Hebrew Media. (4:4:4) Prerequisite: Heb 101, 102.
Emphasizes reading, aural comprehension, and speaking Hebrew. Includes newspaper reading, listening to local news on radio and television, and in-class discussion of current events. Offered at the Jerusalem Center for Near Eastern Studies only.

313. Readings in the Old Testament. (3:3:0)
Readings in the Old Testament in Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

321. Intermediate Conversation and Media. (3:3:0) W alt yr. Prerequisite: Heb 101, 102.
Capitalizing on daily life in Jerusalem to increase speaking, reading, writing, and listening comprehension in modern Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

331. Readings in the Hebrew Scriptures 1. (4:5:0) Prerequisite: Heb 132, 201, or equivalent.
Grammar review and vocabulary building through reading historical and prophetic books.

411R. Advanced Conversation. (4:4:4) Prerequisite: Heb 311R or equivalent.
Emphasizes conversation in everyday situations. Students role play various situations in class and then apply their learning in Jerusalem. Offered at the Jerusalem Center for Near Eastern Studies only.

421. Readings in the Hebrew Translation of the New Testament. (3:3:0)
Readings in the New Testament in Hebrew translation. Offered at the Jerusalem Center for Near Eastern Studies only.

431. Readings in the Hebrew Scriptures 2. (4:4:0) Prerequisite: Heb 331.
Readings in the poetic and wisdom literature.

432R. Ancient Hebrew Texts. (2:2:0 ea.) F, W Prerequisite: Heb 331.

441. Postbiblical Hebrew: Mishnah. (2:2:0) Prerequisite: Heb 331.
Introduction to the grammar of Mishnaic Hebrew. Readings from various tractates of the Mishnah.

Japanese

BA Japanese (38–54 hours*)

Major Requirements

1. Students will be required to sit a comprehensive language exam covering grammar and Joyo Kanji.
2. A required reading list must be completed, evidenced by successful completion of Japan 492, normally during the last semester before graduation.
3. Counsel with advisor to determine supporting courses appropriate to your professional goals.
4. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201, 202.
5. Complete the following:
   Japan 300, 302, 311R, 321, 322, 441, 443, 444, 492.
6. Complete one course from the following:
   Japan 325, 326.
7. Complete one course from the following:
   Japan 350, 351, 352.
8. Complete 6 hours from the following:
   Japan 325, 326, 345, 350, 351, 352, 377.
   (Optionally, one of the following may be substituted for Japan 345: Hist 343, 344, Pl Sc 354, 386, Japan 390.)

Recommended Courses

It is recommended that students complete Engl 311 or similar courses before enrolling in advanced literature courses.

*Hours include courses that may fulfill university core requirements.

Minor Japanese (16–32 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201, 202.
2. Complete the following:
   Japan 300, 302, 311R, 321, 322.

*Hours include courses that may fulfill university core requirements.

Minor Japanese Teaching (25–41 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Japan 101, 102, 201, 202.
2. Complete the following:
   Japan 300, 302, 311R, 321, 322, 377.
3. Complete one course from the following:
   Japan 325, 326.
4. Complete one course from the following:
   Japan 345, 350, 351, 352.

*Hours include courses that may fulfill university core requirements.

Japanese (Japan)

Undergraduate Courses

101, 102. First-Year Japanese. (4:5:1 ea.) Prerequisite: for 102, Japan 101, or equivalent.
Writing systems, grammar and vocabulary-building fundamentals, basic conversation and reading. Includes introduction to Chinese characters in 102.

201. Second-Year Japanese. (4:5:2) Prerequisite: Japan 102 or equivalent.
Further practice in conversation; basic reading and writing skills.

202. Second-Year Japanese. (4:5:0) Prerequisite: Japan 201 or equivalent.
Further practice in conversation, reading, and writing; introducing culture through short stories, articles. Not for returned missionaries.

211R. Second-Year Conversation. (1–3:Arr.:0 ea.) For Japan Study Abroad or Foreign Language Student Residence students only. Prerequisite: Japan 102 or equivalent.

300. Japanese Reading, Grammar, and Culture. (4:5:0) Prerequisite: Japan 202 or equivalent.
Reading and writing emphasizing essential characters, vocabulary, grammar, and culture. First course for returned missionaries.

302. Readings in Japanese History and Literature. (4:5:0) Prerequisite: Japan 300 or instructor's consent.
Readings in Japanese history and literature with essential characters, vocabulary, and grammatical principles.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Japan 300 or instructor's consent.
May be repeated for Study Abroad in Japan.

321. Selected Readings and Grammar. (3:3:0) Prerequisite: Japan 302 or equivalent.
Readings in modern documentary styles, emphasizing reading comprehension, grammar, and vocabulary building.

322. Selected Readings and Grammar. (3:3:0) Prerequisite: Japan 302 or equivalent.
Readings in modern short fiction, emphasizing grammar, reading comprehension, vocabulary building, and stylistic analysis.

325. Japanese Morphology, Syntax, and Semantics. (3:3:0) Prerequisite: Japan 302.
General overview of grammar and its practical application in composition.

326. Contrastive Analysis of Japanese and English. (3:3:0) Prerequisite: Japan 302.
Contrastive overview of Japanese and English phonology, syntax, semantics, and discourse.

345. Japanese Culture. (3:3:0)
General survey emphasizing aesthetics, religion, and value systems. All readings in English.

350. Japanese Literature in Translation—Eighth Through Sixteenth Centuries. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from 700 through 1600 (Nara, Heian, and medieval periods).

351. Japanese Literature in Translation—Seventeenth Through Nineteenth Centuries. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from 1600 through 1900 (Edo and Meiji periods).

352. Japanese Literature in Translation—The Modern Era. (3:3:0)
Reading and discussing selected topics in Japanese literature (narrative, lyric, drama) from Meiji period to the present.

377. Japanese Language Teaching Procedures. (3:3:0) Prerequisite: Japan 302 or instructor's consent.
Acquiring knowledge and skills specific to teaching of Japanese as a foreign language. Conducted in Japanese and English.

390. Japanese for Special Purposes. (3:3:0) Prerequisite: Japan 321 or equivalent.
Readings, video materials, discussions, and projects in content areas related specifically to business, science, and technology.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Japan 302.
On-the-job cultural and/or language experience.

441. Introduction to Classical Japanese. (3:3:0) Prerequisite: Japan 321 or 322.
Reading of premodern texts, emphasizing grammar and syntax, and showing differences from and influences on the modern idiom.

443. Advanced Readings and Grammar. (3:3:0) Prerequisite: Japan 322 or equivalent.
Reading and discussion of modern expository texts; developing advanced listening skills using authentic materials.

444. Modern Japanese Literature. (3:3:0) Prerequisite: Japan 321, 322; or equivalents.
Fictional texts from major twentieth-century authors. Texts primarily in Japanese.

490R. Individual Study in Japanese. (1–3:Arr.:0 ea.) Prerequisite: consent of advisor and instructor.
Topics vary. Assignments to fit individual needs of the advanced student.

492. Majors' Reading List. (1:1:Arr.) Prerequisite: department approval.
Guided reading course to meet reading list requirement. Required of all majors.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Japan 302 or equivalent.
On-the-job cultural and/or language experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Korean

BA Korean (37–53 hours*)

Major Requirements

1. Complete the following prerequisite courses (or equivalents):
   Korea 101, 102, 201, 202.
2. Complete the following:
   Hist 346.
   Korea 301, 302, 321, 325, 340, 401, 402, 443, 495.
3. Complete 6 hours from the following:
   Korea 311R, 344R, 345, 399R, 441, 490R.

Recommended

Prospective majors are urged to have a concurrent major or minor in another discipline.

*Hours include courses that may fulfill university core requirements.

Minor Korean (16–33 hours*)

Minor Requirements

1. Complete the following prerequisite courses (or equivalents):
   Korea 101, 102, 201, 202.
2. Complete the following:
   Korea 301, 302, 321, 340.
3. Complete one course from the following:
   Bus M 596.
   Korea 311R or higher.

*Hours include courses that may fulfill university core requirements.

Korean (Korea)

Undergraduate Courses

101. First-Year Korean 1. (4:5:0) F
Han'qul, the phonetic system, basic grammar and vocabulary, discourse, reading, and culture.

102. First-Year Korean 2. (4:5:0) Prerequisite: Korea 101 or equivalent.
Continuation of Korea 101. Phonetic system, basic grammar, vocabulary, discourse, reading, and culture.

201. Second-Year Korean 1. (4:5:0) F Prerequisite: Korea 102 or equivalent.
Further practice in discourse and basic reading and writing skills; culture.

202. Second-Year Korean 2. (4:5:0) Prerequisite: Korea 201 or equivalent.
Continuation of Korea 201. Conversation, basic reading and writing skills, culture. Introduction to Chinese characters. Not for returned missionaries.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Korea 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

301. Third-Year Korean 1. (4:5:0) Prerequisite: Korea 202 or equivalent.
Vocabulary, grammar, discourse, pronunciation, hanja, and culture. First course for returned missionaries.

302. Third-Year Korean 2. (4:5:0) W Prerequisite: Korea 301 or equivalent.
Continuation of Korea 301. Vocabulary, grammar, discourse, hanja, composition, pronunciation, and culture.

311R. Third-Year Conversation. (2:2:0 ea.) W Prerequisite: Korea 301 or foreign residence experience.
Advanced conversational skills.

321. Selected Readings of Modern Korean. (3:3:0) Prerequisite: Korea 301 or equivalent.
Mixed script (with hanja) and other readings from modern documentary and literary texts, emphasizing comprehension, grammar, and vocabulary building.

325. Structure of Korean. (3:3:0) Prerequisite: Korea 302.
Applying phonology, morphology, syntax, and semantics to the problems of learning Korean.

340. Korean Literature to 1900. (3:4:0) Prerequisite: Korea 302.
Korean literature from the earliest times to 1900, emphasizing basic literary concepts.

344R. Korean Literature in Translation. (3:3:0 ea.)
All readings in English; topics vary.

345. Korean Culture. (3:3:0)
Selected topics in traditional, modern, and contemporary Korean culture. All readings in English.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Korea 301; instructor's consent.
On-the-job cultural and language experience.

401. Fourth-Year Korean 1. (3:3:0) F Prerequisite: Korea 302.
Advanced language preparation in reading, discourse, writing, and hanja.

402. Fourth-Year Korean 2. (3:3:0) W Prerequisite: Korea 401.
Continuation of Korea 401. Advanced reading, discourse, writing, and hanja.

441. Classical Korean (Hanmun). (3:4:0) Prerequisite: Korea 321 or Chin 441.
Reading of premodern, documentary Sino-Korean texts, including genealogy records and the Choson Dynasty Annals.

443. Korean Literature after 1900. (3:4:0) Prerequisite: Korea 302.
Literary texts from major post-1900 authors, in Korean, emphasizing reading, translating, and criticism.

490R. Individual Study in Korean. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Individual assignments appropriate to needs of advanced students.

495. Senior Seminar. (2:2:0)
Individual research, with seminar paper the primary objective. Required for Korean majors.

Near Eastern Languages

Near Eastern Languages (Ne Lg)

Undergraduate Courses

321R. Studies in Modern Near Eastern Languages. (4:4:2 ea.)
Grammar, reading, writing, and conversational skills.

340. Ancient Near Eastern Mythology. (3:3:0)
Major themes in mythological literature of Egypt, Canaan, Mesopotamia, Anatolia, and ancient Iran. All readings in English.

345. Texts and Ancient Temples. (3:3:0)
Major ancient Near Eastern texts dealing with the temple; analysis of primary elements of ancient temple type as a place of worship.

495. Senior Seminar in Near Eastern Studies. (3:3:0) Prerequisite: Near Eastern Studies major; senior status.
Capstone course for Near Eastern Studies majors. Includes major research paper demonstrating ability to integrate cross-disciplinary information and methodology.

500-Level Graduate Course (available to advanced undergraduates)

511R. Studies in Ancient Near Eastern Languages. (2–4:4:0 ea.)
Grammar and reading skills.

521R. Special Topics in Ancient Near Eastern Literature. (2–3:3:0 ea.)
Historical and comparative studies of ancient Near Eastern literature.

Asian and Near Eastern Languages Faculty

Professors

Belnap, R. Kirk (1990) BA, MA, Brigham Young U., 1983, 1986; PhD, U. of Pennsylvania, 1991.
Gessel, Van C. (1990) BA, U. of Utah, 1973; MA, PhD, Columbia U., 1975, 1979.
Honey, David B. (1987) BA, U. of California, Los Angeles, 1980; MA, PhD, U. of California, Berkeley, 1984, 1988.
Miller, J. Scott (1994) BA, Brigham Young U., 1982; MA, PhD, Princeton U., 1986, 1988.

Parkinson, Dilworth B. (1980) BA, Brigham Young U., 1975; MA, PhD, U. of Michigan, 1976, 1982.
Parry, Donald W. (1992) BA, MA, Brigham Young U., 1985, 1986; PhD, U. of Utah, 1992.
Peterson, Daniel C. (1986) BA, Brigham Young U., 1977; PhD, U. of California, Los Angeles, 1990.
Ricks, Stephen David (1981) BA, MA, Brigham Young U., 1974, 1976; PhD, U. of California, Berkeley, and Graduate Theological Union, 1982.
Watabe, Masakazu (1977) BA, MA, Brigham Young U., 1972, 1973; PhD, U. of Southern California, 1978.

Associate Professors
Bourgerie, Dana S. (1991) BA, U. of Minnesota, 1982; MA, PhD, Ohio State U., 1987, 1990.
Christensen, Matthew B. (1995) BA, Brigham Young U., 1988; MA, PhD, Ohio State U., 1990, 1994.
Peterson, Mark A. (1983) BA, Brigham Young U., 1971; MA, PhD, Harvard U., 1973, 1987.
Russell, Robert A. (1982) BA, U. of Utah, 1968; PhD, Harvard U., 1977.
Toronto, James A. (1992) BA, MEd, Brigham Young U., 1975, 1980; MA, PhD, Harvard U., 1984, 1992.
Warnick, J. Paul (1996) BS, MA, Brigham Young U., 1983, 1989; PhD, Ohio State U., 1996.

Assistant Professors
Damron, Julie Ann (2005) BA, Brigham Young U., 1991; MAT, School for International Training, 1993; PhD, Purdue U., 2000.
Riep, Steven L. (2003) BA, U. of California, Berkeley, 1987; MA, PhD, U. of California, Los Angeles, 1991, 2001.
Stoneman, Jack (2005) BA, Brigham Young U., 1998; MA, PhD, Columbia U., 2002, 2006.

Instructor
Richards, Monica H. (2001) BA, Brigham Young U., 1995; MA, U. of Utah, 2001.

Emeriti
Beaman, Bruce W. (1970) BA, Brigham Young U., 1959; MA, Indiana U., Bloomington, 1969.
Lee, Tsaifeng (Mazie) (1965) BA, MA, U. of Hawaii, 1960, 1972.
Pack, Melvin Deloy (1974) BS, U. of California, Los Angeles, 1965; MA, Brigham Young U., 1973; PhD, U. of Pennsylvania, 1981.
Perkins, George W. (1975) BA, Brigham Young U., 1962; MA, PhD, Stanford U., 1967, 1977.
Williams, Gary S. (1966) BA, Brigham Young U., 1962; PhD, U. of Washington, 1973.

Asian Studies

See International and Area Studies section of this catalog.

Astronomy

See Physics and Astronomy section of this catalog.

Aymara

See Center for Language Studies.

Basque

See Center for Language Studies.

Bicolano

See Center for Language Studies.

Biochemistry

See Chemistry and Biochemistry section of this catalog.

Biology

Biology Office
Shauna C. Anderson, Director
375 WIDB, (801) 422-4295

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

The degree program in biology has open enrollment.

The Discipline

A degree for students who desire a broad approach to biology, the major provides solid preparation for graduate schools in most fields of biology as well as for a full range of professional schools.

Learning Outcomes

The biology major is designed to provide the following student learning outcomes:

1. Demonstrate a proficiency of knowledge in the following areas of biology: cell biology; molecular biology and genetics; organismal biology; and population, evolution, and ecological biology.
2. Demonstrate critical or analytical thinking skills by analyzing and interpreting experimental data.
3. Exhibit proficient writing skills by producing a portfolio, research paper, scientific journal article, and/or scientific poster.
4. Critically read scientific literature and evaluate the ability of an argument or evidence to support a conclusion.
5. Function as a collaborative team member by participating in student-mentored learning groups or research groups.

These skills will be valuable for those students desiring to enter a variety of graduate programs or professional schools.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Program and Degree

BS Biology

Students should see their college advisement center for help or information concerning the undergraduate programs.

BS Biology (58.5–61.5 hours*)

Major Requirements

1. Complete the following core requirements:
   Biol 101, 120, 220, 240, 241, 340, 350, 360, 420, 421.
2. Complete one course from the following:
   InBio 380.
   PAS 440.
   PDBio 362.
3. Complete one course from the following:
   Math 112, 119.
   Stat 221.
4. Complete one of the following options:
   Either Phscs 105, 106, 107, 108.
   Or Phscs 121, 123, 220.
5. Complete at least 13 hours from the following:
   Chem 105, 106, 107, 223, 285, 351, 352, 353, 481.
6. Complete at least 12 hours of elective courses. Electives may include upper-division courses, mentored experience, or a combination of the two.
   a. Upper-division courses:
      1. Electives must include 6 hours of approved upper-division courses from the college (any R or stand-alone lab courses are not acceptable). The remaining 6 hours may include other approved upper-division courses (chemistry courses must be 352 or above) and/or a mentored experience (Biol 399R, 489R, 494R, 499R).
      2. Students who are admitted to dental, optometry, podiatry, chiropractic, naturopathic, or pharmacy schools after their junior year can transfer credits from the first year of professional school back to BYU to fulfill the biology electives.
   b. Mentored experience:
      The mentored experience requires from three hours' minimum to six hours' maximum effort per week each semester for 1 hour of credit. Three options exist for obtaining mentored experience (BYU Study Abroad programs are unacceptable substitutes):
      1. Mentored research. Students must be accepted to work under a faculty member's direction. They will frequently associate with other researchers working under the mentor's direction. A written paper and oral presentation are required as fulfillment of the mentored experience. Student research often leads to participation in a publication and/or a presentation at a professional meeting.
      2. Mentored internship. Students may obtain credit for a previously approved academic internship program in which the appropriate credit hours are assigned for the experience (limit of 6 credit hours toward biology electives). Students may also plan a semester away into their schedule. By interning in the U.S. and being a full-time student through Independent Study, they may keep scholarships and financial aid without attending class or deferring.
      3. Senior thesis. The student may obtain credit for the production of a senior thesis, derived primarily from library study that extensively explores relevant questions determined by an approved faculty mentor. The senior thesis option consists of a combination of course work and credit for the senior thesis research. A prospectus for the senior thesis must be approved by the Biology Office prior to assigning the number of credit hours that apply to the thesis. The final thesis must be submitted and approved before credit will be accepted for the mentored experience.
7. Complete an exit interview.
8. Pass a national biology field examination.

Recommended Courses

The following courses are recommended for students interested in graduate and professional programs:

Chem 351, 352, 353, 481.
Math 119 or higher.
Phscs 105, 106, 107, 108

*Hours include courses that may fulfill university core requirements.

Biology Composite Teaching

See the Department of Integrative Biology for this degree program.

Preveterinary Medicine

Beverly L. Roeder, Advisor
386 WIDB (801) 422-6873

Students interested in applying to veterinary medicine schools should take the following courses as part of the biology major:

Biol 291R, 392R (2 hours).
Chem 351, 352, 353 (1 hour), 481.
Engl 316.
InBio 270.
Math 119 or higher.
MMBio 221, 222.
NDFS 330.
PDBio 484.
Stat 221.
TMA 150.

Biology Courses (Biol)

100. Principles of Biology. (3:3:1) F, W, Sp, Su Honors also.
Introductory course for general education students.

101. Freshman Biology Seminar. (0.5:1:0) F, W
Presentations of the various majors offered in the College of Biology and Agriculture.

120. Science of Biology. (2:2:1) F, W, Sp, Su Honors also.
General biology course designed for biological science majors, emphasizing the scientific method, cell theory, biochemical unity, the Central Dogma, bioenergetics, reproduction, and evolutionary theory.

150. Environmental Biology. (3:3:0) F, W
Conservation and management of natural resources concurrent with increasing socioeconomic and human population demands; factors such as soil, water, and air pollution, resources management, bioremediation, nutrient cycles, and global climate changes.

190R. College of Biology and Agriculture Student Council. (1:1:0 ea.) F, W, Sp, Su Prerequisite: application for student council position.
Active involvement on the student council for the College of Biology and Agriculture. Exploring and suggesting solutions to issues facing students in the college.

220. Biodiversity. (2:2:0) F, W, Sp Prerequisite: Biol 120.
Continuation of a general biology course designed for biological science majors. Diversity of life on earth: its origins, global distribution patterns, services and values to humankind, and the challenge of protecting it.

240. Molecular Biology. (3:3:1) F, W, Sp Prerequisite: Biol 120, Chem 105.
Fundamentals of protein and nucleic acid structure and their function in the context of the classical experiments that have informed our current models of biology at the molecular level.

241. Molecular and Cellular Biology Laboratory. (1:0:3) F, W, Sp Prerequisite: Biol 240 or concurrent enrollment.
Molecular and cellular biology techniques laboratory.

276. Genetics and Reproduction. (3:3:0) Independent Study only. Prerequisite: any biology course.
Principles of inheritance.

340. Genetics. (2:2:1) F, W, Su Prerequisite: Biol 240.
Genetic mechanisms, their fundamental nature, interactions, and applications to human affairs. Genetics in quantitative terms. Extensive practice in problem solving.

350. Ecology. (3:3:0) F, W, Sp Prerequisite: Biol 220.
Distribution and abundance of organisms and their interactions with the physical and biotic components of the earth.

360. Cell Biology. (3:3:1) F, W, Su Prerequisite: Biol 240.
Fundamentals of cell structure and function with reference to analytical methods used by cell biologists. Practice in designing, executing, and interpreting relevant experiments.

399R. Academic Internship. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Approved experiential learning.

420. Evolutionary Biology. (2:2:0) F, W, Sp Prerequisite: Biol 240, 340.
Intensive examination of evolution as the conceptual cornerstone of biology.

421. Evolutionary Biology Laboratory. (1:0:3) F, W, Sp Prerequisite: Biol 240, 340; Biol 420 or concurrent enrollment.
Methodology and evidence used in evolutionary biology: comparative anatomy, DNA and protein techniques, radiometric and non-radiometric dating, fossil data, etc.

489R. Senior Library Thesis. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: prospectus approval by Biology Office.
Mentored library study that extensively explores relevant questions determined by an approved faculty mentor.

490R. Special Problems. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: Biology Office consent.

494R. Mentored Research. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.

499R. Senior Honors Thesis. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Topic to be cleared with Honors Program and Biology Office.

500-Level Graduate Courses (available to advanced undergraduates)

503. Research Orientation. (1:1:0) F
Introduction to graduate school and research techniques.

Botany and Range Science

See Integrative Biology and Plant and Animal Sciences sections of this catalog.

Bulgarian

See Germanic and Slavic Languages.

Burmese

See Center for Language Studies.

Business

See Marriott School of Management.

Cakchiquel

See Center for Language Studies.

Cambodian

See Center for Language Studies.

Cantonese

See Asian and Near Eastern Languages.

Catalan

See Center for Language Studies.

Cebuano

See Center for Language Studies.

Chemical Engineering

W. Vincent Wilding, Chair
350 CB, (801) 422-2393

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The chemical engineering degree program is open to all students.

The Discipline

Chemical engineering is the application of chemistry, biology, physics, mathematics, computer skills, and economics to designing, developing, and implementing chemical processes that convert raw materials into more useful, valuable products. Engineering skills are required for design, testing, scale-up, operation, control, and optimization. Applications range in size from the molecular level to large chemical production facilities, with objectives ranging from economic performance to protection of the environment and the safety of workers and consumers. Chemical engineers are engaged in developing and producing a diverse range of products from raw materials to commodity and specialty chemicals. These products include high-performance materials needed for aerospace, automotive, biomedical, electronic, environmental, and military applications. Chemical engineers work in a variety of industries, including chemical manufacturing, energy, biotechnology, electronics, food, clothing, paper, health care, and business services.

Educational Objectives

The Chemical Engineering Department's educational objectives are to:

1. Prepare student who continue to exhibit and commit to lives of faith in Jesus Christ and service to family, church, and community.
2. Prepare students, through a broad university education, who continue to: develop and demonstrate reasoning skills and effective communication abilities, deepen their understanding of contemporary and global issues, pursue lifelong learning, and expand their involvement toward the improvement of society.
3. Prepare students to develop and implement solutions for a lifetime of open-ended, technical, and other problems by equipping them with a strong foundation in engineering, science, and mathematics and excellent training in chemical engineering theory and practice.
4. Prepare students who exemplify professional ethics, exhibit an appreciation for diversity, work with and contribute to the development of others, and engage in responsible engineering practice.

These objectives are intended to help develop the following attributes in students graduating from the program:

1. An understanding of the chemical engineering major and profession.
2. An understanding of fundamental principles of mathematics and science.
3. An understanding of chemical engineering fundamentals.
4. Practical experience with chemical process equipment, chemical handling, chemical analysis, and process instrumentation.
5. An ability to use modern engineering tools necessary for engineering practice.
6. An ability to define and solve engineering problems.
7. A dedication to and a working knowledge of safety and environmental aspects of engineering practice.

8. An ability to communicate ideas effectively in both oral and written form.
9. An ability to work effectively with others to accomplish common goals.
10. An ability to apply chemical engineering fundamentals to solve open-ended problems and to design process units and systems of process units including multiple operations.
11. An appreciation for and a commitment to ethical and professional responsibilities.
12. An appreciation for and a commitment to the continuing pursuit of excellence and the full realization of human potential.

Career Opportunities

The combination of knowledge about process engineering, math, and chemistry obtained in the chemical engineering curriculum is a versatile preparation that opens a wide variety of opportunities to graduates. This versatility is one reason why chemical engineers have traditionally been among the highest paid professionals in the engineering and science disciplines.

Chemical engineers make a significant difference in the quality of life. Some develop clean, new energy sources to power society. Some develop and produce fertilizers and other agricultural chemicals to feed mankind. Virtually all pharmaceuticals are produced by chemical engineers to enhance the life of millions. Others study and produce biomedical devices and artificial organs. Still others are involved in development and production of new materials for use in new high-tech products.

Chemical engineers produce chemicals ranging in use from cleaning products to medicines and from man-made fibers for clothing and textiles to plastics for construction and consumer goods. Another large employer of chemical engineers is the semiconductor industry. In work that involves significant knowledge of chemistry and related processes, chemical engineers assist in the design and manufacture of semiconductor chips and circuit boards. The petroleum industry also employs chemical engineers, requiring their expertise for the discovery, production, and refining of petro-chemicals, including fuels, chemicals, and oils.

Many chemical engineers are employed in environmentally related positions, working on ways to improve air and water quality, to reduce acid rain and smog, and to recycle and reduce waste. Additionally, chemical engineers are employed by universities as teachers and researchers and by government agencies to provide answers for energy, environmental, and defense concerns. Chemical engineers also train to work in the medical, business, and legal professions.

Though chemical engineering career opportunities are diverse, job functions can be categorized more easily. Chemical engineers are usually involved in research, design, development, production, technical sales, or management.

In research, they develop new ideas, new products, and new ways to produce existing products more economically and with less environmental impact.

In design, they create the processes that convert raw materials into finished products with emphasis on efficiency, safety, consumer needs, and environmental protection.

The development engineer improves existing processes and technology to better meet changing needs.

Production engineering involves supervision, quality control, and testing of production processes and operations.

Management and technical sales involve decision making with regard to consumer needs and technical capabilities.

Chemical engineers are creative problem solvers. Their careers are rewarding not only from an intellectual and financial view, but also from a personal perspective. Affecting the lives of millions, their solutions provide a better lifestyle for mankind.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Chemical Engineering

Students should see the college advisement center (264 CB) for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Chemical Engineering
PhD Chemical Engineering

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

The Chemical Engineering Department offers a professional program leading to the bachelor of science degree. The first two years of this program are considered to be preprofessional with course work emphasis on math, chemistry, and chemical engineering fundamentals. The remaining two years are considered to constitute the professional program.

Any student who is admitted to the university may choose this program as a possible major. All students are urged to declare their intention to major in the department upon first entry to the university or as soon thereafter as possible by contacting the college advisement center (264 CB). Students electing to major in this program must successfully complete the minimum preprofessional program requirements and submit an application for the department's professional program.

Transfer Students. Provisions have been made so that a qualified student transferring from a junior college or from another university, college, or department, who has completed the equivalent of the first two years of the academic program, can complete the BS degree requirements in another two years. Contact the department at the earliest date possible so that any variations can be accommodated with minimum loss of time.

Integrated Master's Program. At the end of the sophomore year or during the junior year, qualified students desiring a master's degree in chemical engineering may elect to enter the integrated master's program. The purpose of this program is to afford greater flexibility in scheduling course work than is normally available through the traditional BS degree followed by MS degree program. In this program students may work toward both the bachelor's and master's degrees simultaneously, either receiving the BS degree before or at the same time as the MS degree. At the end of the sophomore year students must have a cumulative GPA of 3.5 or more. All credit to be counted toward the master's degree must carry a cumulative GPA of 3.0 or better.

Before completing the final 30 hours of undergraduate course work, students should submit a formal application for admission to the Office of Graduate Studies. Additional details may be obtained from the college advisement center.

Professional Registration. The Chemical Engineering Department encourages graduates to become registered professional engineers. General qualifications for becoming registered are explained in the Ira A. Fulton College of Engineering and Technology section of this catalog. Some states require this status for consulting and practice in the private sector. Successful completion of the basic chemical engineering program outline prepares graduates to pass the Fundamentals of Engineering (FE) examination. Students who wish to become registered as professional engineers are also advised to talk to their advisor about developing their own professional engineering option, which may include additional FE preparation courses.

Professional Program Admission Policy. Admission to the professional program is available to all students in good academic standing with the univeristy who have (a) passed the prerequisite courses for the first-semester professional courses, namely Ch En 273 and Math 302, and (b) submitted to the department an Application for the Chemical Engineering Professional Program.

The Application for the Chemical Engineering Professional Program requires students to meet with their department advisor for direction and counseling with regard to performance in the preprofessional program courses and successful completion of the professional program.

Academic Standards and Continuance Policy. The student's academic standing with the university must be "Good" or "Previous" to enroll in professional program courses. Anyone who accumulates chemical engineering grades below C– in excess of 6 hours may not take further chemical engineering courses until he or she has reduced the unacceptable credits to 6 hours or less. A student may not graduate with more than 3 hours below C– in chemical engineering courses.

BS Chemical Engineering (101.5–103.5 hours*)

Major Requirements

1. Students are strongly encouraged to consult with the department about their course scheduling.
2. Complete the following preprofessional courses:
   Chem 111, 112 (or 105, 106, 107).
   Ch En 170, 263, 273, 291.
   Math 112, 113, 302, 303.
   Phscs 121, 220.
3. Complete the following professional courses:
   Ch En 311, 373, 374, 376, 378, 391, 436, 451, 475, 476, 477, 478.
4. Complete the following supporting courses:
   Biol 100.
   Chem 351, 352, 461.
   Econ 110.
   Engl 316.
   Stat 332.
5. Complete technical electives (12 hours minimum) satisfying the following requirements:
   a. Complete 2 hours of chemistry laboratory (Chem 113, 353, 464, or 465).
   b. Complete 6 hours of advanced (300-level or above) engineering course work from any of the following departments: Chemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Mechanical Engineering, or the School of Technology.
   c. Complete 4 hours of advanced (300-level or above) course work from an engineering, math, science, or business department. Only 1 hour of Chem 497 is acceptable. No more than 3 hours of Ch En 498R (only 2 hours if Chem 497R is taken) may be applied to the program. Phscs 281 is approved for this requirement.
6. Pass a basic competency exam (L3 Exam) administered by the Chemical Engineering Department (see the department for details).

*Hours include courses that may fulfill university core requirements.

Chemical Engineering (Ch En)

Undergraduate Courses

170. Introduction to Chemical Engineering. (2:2:0) F, W
Prerequisite: Chem 111 (or 105) or equivalent or concurrent enrollment.

Principles of chemical processes and analyses with spreadsheets and graphics. Applying chemical engineering to current problems.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Prerequisite: consent of both department chair and cooperative education coordinator.

Work experience evaluated by supervisor and posted on student's transcript.

263. Computational Tools for Chemical Engineers. (2:2:0) F, Sp
Prerequisite: Ch En 170 or concurrent enrollment; Math 113.

Use of spreadsheets, advanced equation-solving packages, and structured languages to solve engineering problems. Introduction to chemical process principles. College Lecture attendance required.

273. Chemical Process Principles. (3:3:0) W, Sp Prerequisite: Ch En 170 or equivalent or concurrent enrollment; Ch En 263 or equivalent; Chem 106 or 112; concurrent enrollment in Phscs 121, Math 113.

Material and energy balances. College Lecture attendance required.

291. Preprofessional Seminar. (0.5:1:0) F, W

Presentations by faculty, advisors, and industrial representatives. College Lecture attendance required.

310. Energy and the Environment. (3:3:0) F Prerequisite: Ch En 273 or equivelent.

Energy sources, demands, and processes; costs and environmental studies; case studies of various fossil fuel and alternate energy sources; introduction to combustion and flames.

311. Chemical Engineering and Society. (3:3:0) F Prerequisite: Ch En 273; admission to professional program.

Responsibility of chemical engineers when interacting with society relative to safety, environment, and ethics.

373. Chemical Engineering Thermodynamics. (3:3:0) W
Prerequisite: Ch En 273, 311; Chem 461.

First and second laws of thermodynamics as applied to behavior of real fluids; physical and chemical equilibrium. College Lecture attendance required.

374. Fluid Mechanics. (3:3:0) F Prerequisite: Math 302, Ch En 273; concurrent enrollment in Ch En 311; admission to professional program.

Basic mass, momentum, and energy relations of fluid flow; design of fluid-handling systems and equipment. College Lecture attendance required.

376. Heat and Mass Transfer. (3:3:0) W Prerequisite: Ch En 311, 374.

Heat and mass transfer, including conduction, convection, radiation, diffusion; steady and unsteady state systems; transport analogies; design applications.

378. Science of Engineering Materials. (3:3:0) F, Sp Prerequisite: Chem 351 or instructor's consent.

Fundamental principles of solid materials and their properties and behavior in engineering applications of metals, polymers, ceramics, and glasses.

381. Introduction to Semiconductor Processing. (3:2:1) F
Prerequisite: Chem 105 or 111 or equivalent; Math 303 or equivalent; Ch En 273 or instructor's consent.

Unit operations related to silicon-based semiconductor processing, including substrate preparation, photolithography, doping, etching, and thin film formation. Lab included.

391. Career Skills. (1:1:0) F, W Prerequisite: admission to professional program.
Professional, communication, and lifelong learning skills. Field trip to chemical process facility.

400. Creative Skills in Chemical Engineering. (1:1:0) F
Application of creativity and technical knowledge from prior course work to solution of relevant, open-ended problems.

411. Air Pollution Control. (3:3:0) W alt yr. Prerequisite: Ch En 273 or instructor's consent.
Causes and effects of air pollution; standards, criteria, and legislation; dispersion, meteorology, and atmospheric chemistry. Includes design project and use of impact statements.

412. Introductory Nuclear Engineering. (3:3:0) On dem. Prerequisite: Math 303; Chem 106 or 112.
Principles and application of nuclear reactor design.

436. Process Control and Dynamics. (3:3:0) F Prerequisite: Math 303, Ch En 376, 478.
Process systems, associated control systems, and instrumentation. Use of Laplace transforms and complex variables.

451. Chemical Engineering Plant Design and Process Synthesis. (4:4:0) W Prerequisite: Ch En 391, 436, 476, 478.
Design of chemical engineering machinery; plants and/or processes requiring application of unit operations; chemical process principles; economic analysis. Synthesis and optimization of chemical processes. College Lecture attendance required.

475. Unit Operations Laboratory 1. (2:1:6) F, Sp Prerequisite: Ch En 374, 376, 391; Engl 316; Stat 332.
Experimental verification of unit operations design principles; data collection and reduction; report preparation.

476. Separations. (3:3:0) F Prerequisite: Ch En 373, 376.
Stage operations, distillation, extraction, and absorption; design applications. College Lecture attendance required.

477. Unit Operations Laboratory 2. (2:1:6) W, Sp Prerequisite: Ch En 476, 478. Recommended: Ch En 391, 476, 478; Engl 316; Stat 332.
Experimental verification of unit operations design principles; data collection and reduction; report preparation.

478. Chemical Reaction Engineering. (3:3:0) W Prerequisite: Ch En 311, Chem 461.
Fundamental principles and equations of chemical kinetics and reactor design.

493R. Special Topics—Undergraduate. (1–3:3:Arr. ea.) Prerequisite: instructor's consent.
Classroom study based on student and faculty interest.

498R. Undergraduate Research. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: faculty committee approval.
Final report required; 2 hours maximum allowed for degree credit.

500-Level Graduate Courses (available to advanced undergraduates)

518. Biomedical Engineering Principles. (3:3:0) W Prerequisite: Ch En 374, 376, 478; or equivalents.
Application of chemical engineering principles to model physiologic systems and to solve medical problems.

528. Industrial Catalytic Processes. (2:2:0) Sp alt. yr. on dem. Prerequisite: Chem 106 or 111; 351; Ch En 378, 478; or equivalents.
Fundamentals of catalytic chemistry and materials; applications to important industrial catalytic processes. Includes catalyst materials and preparation, catalyst characterization, fixed-bed reactor design, and catalyst deactivation.

531. Thermodynamics of Multicomponent Systems. (3:3:0) F Prerequisite: Ch En 373 or Chem 461 or equivalent.
Fundamental concepts and applications in first and second laws, equilibrium and stability, phase equilibrium, and homogeneous and heterogeneous chemical equilibrium.

533. Transport Phenomena. (3:3:0) F Prerequisite: Ch En 476 or equivalent or concurrent enrollment. Recommended: Math 347 or equivalent.
Transport mechanisms and coefficients and fundamental field equations for momentum, heat, and mass transport, with application to system design.

535. Kinetics and Catalysis. (3:3:0) F Prerequisite: Ch En 478 or equivalent.
Theories and principles of chemical kinetics, including heterogeneous catalysis and reactor design.

541. Computer Design Methods. (3:3:0) Alt. yr. Prerequisite: Math 311, Ch En 376; or equivalents.
Computer-aided design and numerical methods of chemical engineering processes.

578. Polymer Science and Engineering. (3:3:0) W even yr., Sp odd yr. Prerequisite: Ch En 373, 374, 378, 478; or equivalents.
Foundation science and theory of polymer chemistry and physics and their implications in engineering applications. Topics include polymerization chemistry, structure-property relationships, polymer physics, and transport properties.

593R. Special Topics—Intermediate. (1–3:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Special topics for advanced undergraduate students and for graduate students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Chemical Engineering Faculty

Professors

Bartholomew, Calvin H. (1973) BES, Brigham Young U., 1968; MS, PhD, Stanford U., 1970, 1972.
Baxter, Larry L. (2000) BS, PhD, Brigham Young U., 1983, 1989.
Fletcher, Thomas H. (1991) BS, MS, PhD, Brigham Young U., 1979, 1980, 1983.
Harb, John N. (1988) BS, Brigham Young U., 1983; PhD, U. of Illinois, 1988.
Lewis, Randy S. (2005) BS, Brigham Young U., 1989; PhD, MIT, 1995.
Oscarson, John L. (1974) BES, Brigham Young U., 1968; MS, PhD, U. of Michigan, 1972, 1985.
Pitt, William G. (1987) BS, Brigham Young U., 1983; PhD, U. of Wisconsin, Madison, 1987.
Rowley, Richard L. (1984) BS, Brigham Young U., 1974; PhD, Michigan State U., 1978.
Solen, Kenneth A. (1976) BS, U. of California, Berkeley, 1968; MS, PhD, U. of Wisconsin, Madison, 1972, 1974.
Terry, Ronald E. (1987) BS, Oregon State U., 1971; PhD, Brigham Young U., 1976.
Wilding, W. Vincent (1994) BS, Brigham Young U., 1981; PhD, Rice U., 1985.

Associate Professor

Hecker, William C. (1982) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of California, Berkeley, 1982.

Assistant Professors

Knotts, Thomas A., IV (2006) BS, Brigham Young U., 2001; PhD, U. of Wisconsin, Madison, 2006.
Wheeler, Dean R. (2002) BS, Brigham Young U., 1996; PhD, U. of California, Berkeley, 2002.

Emeriti

Barker, Dee H. (1959) BS, PhD, U. of Utah, 1948, 1951.
Beckstead, Merrill W. (1977) BS, PhD, U. of Utah, 1961, 1965.

Hanks, Richard W. (1963) BES, Yale U., 1957; PhD, U. of Utah, 1960.
Hedman, Paul O. (1977) BS, U. of Utah, 1957; PhD, Brigham Young U., 1973.
Pope, Bill J. (1958) BS, U. of Utah, 1947; MS, PhD, U. of Washington, 1948, 1959.
Smoot, L. Douglas (1967) BS, BES, Brigham Young U., 1957, 1957; MS, PhD, U. of Washington, 1958, 1960.

Chemistry and Biochemistry

Paul B. Farnsworth, Chair
C-104 BNSN, (801) 422-6502

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Chemistry and Biochemistry are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Chemistry is the study of matter, the changes undergone by matter, and the laws that govern the changes. Chemists study atoms as well as the structures and reactions of molecules. They also work to develop simplifying models (theories) that permit the correlation and explanation of observations about matter. Chemical principles are fundamental to the understanding of subjects ranging from the molecular basis of biology to the structure of rocks and minerals. Chemistry is an essential foundation in engineering disciplines, especially in chemical engineering, electronics, energy and environmental science, geology, pharmacy and medicine, and in virtually all manufacturing areas.

Chemistry is an active science that is vital to human existence. Energy needs, environmental concerns, and requirements for new materials all involve major contributions from chemists. Examples of the diverse areas of interest to chemists include regulation of protein synthesis, signal transduction at the cellular level and proteomics (biochemistry), design and synthesis of medicinal compounds (organic chemistry), design and synthesis of new molecular structures and materials (inorganic chemistry), spectroscopic study of energy transfer and molecular structures (physical chemistry), and analysis of medicinal compounds, biological materials, and contaminants or trace elements found in the environment (analytical chemistry).

Chemistry involves more than test tubes and beakers. It includes working with a variety of equipment and instruments such as mass spectrometers, calorimeters, chromatographs, ultracentrifuges, lasers, X-ray diffractometers, and nuclear magnetic resonance spectrometers.

Career Opportunities

Graduates in chemistry obtain positions in virtually every industry, and those who have imagination and intellectual curiosity are in particular demand. Chemistry is also an excellent preprofessional course of study for those interested in medicine, dentistry, law, and business. The chemistry curriculum is both rigorous and intellectually rewarding.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Chemistry
BS	Biochemistry
BS	Chemistry
BS	Chemistry Education
Minors	Chemistry
	Chemistry Education

Students should see the department office for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Chemistry
MS	Biochemistry
PhD	Chemistry
PhD	Biochemistry

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Required High School Preparation

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   2 units of physical science, chemistry, and physics.
   4 units of mathematics, consisting of 2.5 units of algebra, 1 unit of geometry, and 0.5 unit of trigonometry. This should qualify students to begin college mathematics with Math 112, analytic geometry and calculus.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, particular attention is paid to high school preparation in this subject.

   To decide which mathematics course should be taken first, contact the Mathematics Department, 292 TMCB, and request a mathematics placement test.

2. All students, especially freshmen and those transferring, should contact the department between March and August each year for advisement about efficient course scheduling and opportunities for student employment.

Scholarships

Kenneth W. Brighton, H. Tracy Hall, Ida Tanner Hamblin, and other scholarships are available to qualified chemistry majors.

BA Chemistry (56.5 hours*)

This degree provides an excellent preparation for those individuals in preprofessional programs (e.g., medicine, dentistry, master of business administration, or law), and it also provides career alternatives in chemistry.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111, 112, 113, 201, 227, 351M, 352M, 354, 391, 461, 462, 464, 465.
4. Complete the following:
   Math 112, 113, 302.
   Phscs 121, 123, 220.
5. After consulting with an advisor, complete 4 hours from the following:
   Chem 455, 481M, 496R, 497R, 499R, 514, 518, 521, 523, 552, 553, 561, 563, 565, 567, 569, 594R, 596R.

Recommended Courses

Biol 120.
Math 303.
Phscs 140, 145.

Note: Supporting courses suggested by most medical and dental schools are found in the Preprofessional Advisement section of this catalog. The more rigorous chemistry, mathematics, and physics courses required for the chemistry majors will satisfy the minimum requirements listed there. Elective courses in biochemistry and in biological science are especially pertinent to these preprofessional programs.

*Hours include courses that may fulfill university core requirements.

BS Biochemistry (74.5 hours*)

Students preparing for health-related fields (medicine, dentistry, veterinary medicine) or those who desire an advanced degree (MS, PhD) in biochemistry, biology, or the health sciences receive excellent preparation from this degree program.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111, 112, 113, 201, 227, 351M, 352M, 354, 391, 462, 468, 481M, 482, 584, 586.
4. Complete 1 hour of the following:
   Chem 594R (two enrollments).
5. Complete the following:
   Biol 100**, 340, 360.
   Math 112, 113.
   Phscs 121, 123, 220.
   Stat 221.
6. After consulting with an advisor, complete 4 hours from the following:
   Chem 455, 489, 496R, 497R, 499R, 514, 518, 521, 523, 552, 553, 561, 563, 565, 567, 569, 581, 583, 596R.

   Note: With prior approval, many 400- and 500-level courses in biology, integrative biology, microbiology and molecular biology, and physiology and developmental biology will fill this requirement.

Recommended Courses

Biol 120, 220.
Math 302.

Note: Supporting courses suggested by most medical and dental schools are found in the Preprofessional Advisement section of this catalog. The more rigorous chemistry, mathematics, and physics courses required for the chemistry majors will satisfy the minimum requirements listed there. Elective courses in biochemistry and in biological science are especially pertinent to these preprofessional programs.

*Hours include courses that may fulfill university core requirements.

**See a department advisor for alternatives.

BS Chemistry (74.5 hours*)

This is the preferred degree for chemistry majors (approved by the American Chemical Society) and those who desire an advanced degree (MS, PhD) in chemistry. It also provides

excellent preparation for those individuals in preprofessional programs (e.g., medicine, dentistry, business, law).

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Complete the following:
   Chem 111, 112, 113, 201, 227, 351M, 352M, 354, 391, 455, 461, 462, 464, 465, 481M, 514, 518, 521, 523.
4. Complete 1 hour of the following:
   Chem 594R.
5. Complete the following:
   Biol 100**.
   Math 112, 113, 302.
   Phscs 121, 123, 220.
6. After consulting with an advisor, complete 3 hours from the following:
   Chem 482, 496R, 497R, 499R, 552, 553, 561, 563, 565, 567, 569, 584, 586, 596R.

   Note: With approval, certain other 300-level and above courses in the allied fields of physics, statistics, engineering, and biology may be taken to satisfy this requirement.

Recommended Courses

Biol 120.
Math 303.
Phscs 140, 145.
Stat 221.

Note: Elective courses, beyond the requirements above, should be selected in consultation with an advisor. The following should be given consideration: advanced chemistry, foreign languages (especially French, German, Japanese, and Russian), biological sciences, computer science, engineering, mathematics, physics, statistics.

*Hours include courses that may fulfill university core requirements.

**See a department advisor for alternatives.

BS Chemistry Education (79.5 hours*, including licensure hours)

This degree provides preparation for professional high school teaching. High school chemistry teachers will find opportunities available and will know the satisfaction of guiding good students into essential and rewarding careers. Students should work closely with both the Department of Chemistry and Biochemistry and the David O. McKay School of Education Advisement and Certification Office.

Major Requirements

1. No more than 3 hours of D credit is allowed in major courses.
2. The final 10 hours of required chemistry credit must be taken at BYU.
3. Contact the Education Advisement and Certification Office for entrance requirements into the licensure program.
4. A teaching minor is not required for licensure. However, it is strongly recommended.
5. Complete the following:
   Chem 111, 112, 113, 201, 227, 351M, 352M, 391, 462.
6. Complete the following:
   Math 112, 113.
   Phscs 121, 123.
7. Complete 3 hours from the following:
   Chem 354, 464, 465, 497R.
8. Complete 10 hours from the following:
   Biol 100, 150.
   Chem 461, 481M.
   Geol 101 or 111.
   Math 302, 334, 343.
   Phil 423.
   Phscs 140, 145.
9. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 377R, 378, 379.

      Note: Fingerprinting and FBI clearance must be completed before entry into Sc Ed 377R.

   b. Complete 12 hours from one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor Chemistry (17–20 hours*)

Minor Requirements

1. Complete one of the following options:
   Either Chem 111, 112, 113
   Or Chem 105, 106, 107, 223.
2. Complete one of the following options:
   Either Chem 351, 352
   And Chem 353 (2 hours) or 354
   Or Chem 461, 462, 464, 465.

Note: When all of the chemistry credit required for a minor is transferred from another school, at least one course in chemistry must be taken at BYU with a grade of C or better—or the student may request to take a standardized national exam covering advanced material required for the minor. Chemistry programs at some schools have been evaluated, and their credit is acceptable for the minor. No more than one course with a grade in the D range will be allowed.

*Hours include courses that may fulfill university core requirements.

Minor Chemistry Education (15–18 hours*)

Minor Requirements

1. Complete one of the following options:
   Either Chem 111, 112, 113.
   Or Chem 105, 106, 107.
2. Complete the following:
   Chem 201, 351, 352, 353.
3. Complete one course from the following:
   Chem 223, 227, 461, 462, 481.

Note: When all of the chemistry credit required for a minor is transferred from another school, at least one course in chemistry must be taken at BYU with a grade of C or better—or the student may request to take a standardized national exam covering advanced material required for the minor. Chemistry programs at some schools have been evaluated, and their credit is acceptable for the minor. No more than one course with a grade in the D range will be allowed.

*Hours include courses that may fulfill university core requirements.

Chemistry and Biochemistry (Chem)

Undergraduate Courses

100. Elementary College Chemistry. (3:3:0) For nonscience and nonmedical majors. On dem. Independent Study also. Recommended: Phy S 100 or equivalent.
Structure of matter and the chemical consequences of that structure.

101. Introductory General Chemistry. (3:3:0) F, W, Sp, Su Prerequisite: Math 97 or equivalent.
Atomic and molecular structure, periodic relationships, states of matter, chemical reactions and stoichiometry, acids and bases. Primarily for nonscience majors who require a broad introduction to general chemistry.

103. Introductory Chemistry Laboratory. (1:0:3) W Prerequisite: Chem 101 or equivalent.
Introductory laboratory techniques required for simple classical experiments in chemistry.

105. General College Chemistry. (4:5:0) F, W, Sp, Su Prerequisite: Math 110 (or equivalent) or concurrent enrollment.
Atomic and molecular structure including bonding and periodic properties of the elements; reaction energectics, electrochemistry, acids and bases, inorganic and organic chemistry. Primarily for students in engineering and biological sciences. Three lectures and two recitation sections per week.

106. General College Chemistry. (3:4:0) F, W, Su Prerequisite: Chem 105 or equivalent.
Continuation of Chem 105 but covering most of the topics in a more quantitative way. Detailed treatment of thermodynamics and equilibria. Three lectures and one recitation section per week.

107. General College Chemistry Laboratory. (1:0:3) F, W, Sp, Su Prerequisite: Chem 106 or concurrent enrollment.
Chemical properties, chemical reactions, collection and interpretion of data, preparation of reports. Required for most students needing one year of general chemistry.

111. Principles of Chemistry. (3:3:1) F Honors also. Prerequisite: Math 110 (or equivalent) or concurrent enrollment. Strongly recommended: high school chemistry, physics, and introductory calculus or concurrent enrollment in Math 112.
Stoichiometry, kinetic-molecular theory, thermodynamics, states of matter, solutions and equilibria, electrochemistry, structure and bonding, chemical reactions, kinetics. Tutorial included.

112. Principles of Chemistry. (3:3:2) W Prerequisite: Chem 111, or equivalent.
Continuation of Chem 111. Tutorial included.

113. Introductory General Chemistry Laboratory. (2:0:6) F, W Prerequisite: Chem 112 or concurrent enrollment (preferred).
Principles and techniques of chemical measurements. Concepts introduced in general chemistry lecture courses reinforced.

152. Introductory Organic Chemistry. (2:2:0) F, W Prerequisite: Chem 101 or adequate high school preparation in chemistry.
Principles of structure and reactivity, properties and reactions of compound classes, syntheses.

201. Chemical Handling and Safe Laboratory Practices. (0.5:1:0) F 1st blk., W 1st blk., Sp Prerequisite: Chem 113 or 223 or concurrent enrollment.
Safe handling of chemicals and safe practices in chemistry laboratories.

223. Quantitative and Qualitative Analysis. (4:2:6) F, Sp Prerequisite: Chem 106 or equivalent.
Principles of chemical equilibrium, quantitative chemical measurements, and qualitative detection of selected chemical species. Primarily for majors in molecular biology and the life sciences.

227. Introductory Analytical Chemistry. (4:2:6) F, Sp Prerequisite: Chem 113.
Principles of quantitative analysis, introductory instrumental methods, and computer applications to chemical analysis.

285. Introductory Bio-organic Chemistry. (4:4:1) F, W, Sp Prerequisite: Chem 101 or equivalent.
Principles of organic chemistry and biochemistry relating to biomolecule structure and function.

351. Organic Chemistry. (3:3:1) F, W, Sp Prerequisite: Chem 105, 111, or equivalent.
Chemical bonds and molecular structure, conformation and configuration, functional classes, reactions and mechanisms, syntheses. Primarily for majors in chemistry, chemical engineering, and the biological sciences.

351M. Organic Chemistry—Majors. (3:3:0) F Prerequisite: Chem 105, 111, or equivalent.
Chemical bonds and molecular structure, conformation and configuration, functional classes, reactions and mechanisms, syntheses.

352. Organic Chemistry. (3:3:1) F, W, Sp, Su Prerequisite: Chem 351 or equivalent.
Continuation of Chem 351.

352M. Organic Chemistry—Majors. (3:3:0) W Prerequisite: Chem 351M or equivalent.
Continuation of Chem 351M.

353. Organic Chemistry Laboratory— Nonmajors. (1–2:0:6) F, W, Sp, Su Prerequisite: Chem 352 or concurrent enrollment (preferred). For predentistry, premedicine, and other majors who do not intend to take Chem 455.
Physical and chemical properties, isolation and purification, characterization, syntheses.

354. Organic Chemistry Laboratory— Majors. (2:0:6) F, W, Sp Prerequisite: Chem 352 or concurrent enrollment (preferred).
Physical and chemical properties, manipulative skills, isolation and purification, characterization and identification, syntheses.

355. Organic Chemistry Laboratory 2—Nonmajors. (1:0:3) F 2nd blk, W 2nd blk, Sp, Su Prerequisite: Chem 352, 353; or concurrent enrollments.
Physical and chemical properties, isolation, purification, characterization, identification, and syntheses of organic compounds.

391. Technical Writing Using Chemical Literature. (3:3:0) F, W Prerequisite: Chem 227, 352.
Intensive technical writing course based on chemical literature sources. Fulfills GE Advanced Written and Oral Communication requirement.

455. Synthesis and Qualitative Organic Analysis. (3:1:6) F Prerequisite: Chem 354; 201 or concurrent enrollment. For chemistry and other science majors.
Laboratory course emphasizing isolation, purification, and characterization of major and minor products from selected syntheses.

461. Physical Chemistry. (3:3:0) F, W Prerequisite: Chem 227 or Ch En 263 or equivalent; Phscs 123 or concurrent enrollment. Recommended: Math 302.
Thermodynamics and equilibria, states of matter, kinetic-molecular theory, kinetics. May be taken before or after Chem 462.

462. Physical Chemistry. (3:3:0) F, W Prerequisite: Chem 227 or Ch En 263; Phscs 123 or concurrent enrollment.
Quantum mechanics, group theory, atomic and molecular structure, spectroscopy, computational methods, statistical mechanics. May be taken before or after Chem 461.

464. Physical Chemistry Laboratory 1. (1:1:Arr.) F, W Prerequisite: Chem 227; 461, or concurrent enrollment.
Experiments related to physical chemistry: thermodynamics and equilibria, phase transitions, kinetic-molecular theory, kinetics; computer manipulation of data, report preparation. May be taken before, after, or concurrent with Chem 465.

465. Physical Chemistry Laboratory 2. (1:1:0) F, W Prerequisite: Chem 227, 462; or concurrent enrollment.
Experiments related to physical chemistry: quantum mechanics, group theory, atomic and molecular structure, spectroscopy, computational methods, statistical mechanics; computer manipulation of data, report preparation. May be taken before, after, or concurrent with Chem 464.

468. Biophysical Chemistry. (3:3:0) W Prerequisite: Chem 462; 481 or concurrent enrollment. For biochemistry (BS) majors and those interested in the health professions or biochemistry.
Applications of physical chemistry to biological systems. Thermodynamics, equilibria, transport properties, kinetics, spectroscopic applications, computational methods, structural biochemistry.

481. Biochemistry 1. (3:3:0) F, W, Sp Prerequisite: Chem 352; Biol 100 or equivalent. For chemistry majors and students in biological sciences who contemplate pursuing advanced degrees, including medicine.
First-semester biochemistry. Molecular components of cells, chemical structure and function, enzymes, metabolic transformations, photosynthesis.

481M. Biochemistry 1—Majors. (3:3:0) F Prerequisite: Chem 352; Biol 100 or equivalent. For chemistry and biochemistry majors only.
First-semester biochemistry. Molecular components of cells, chemical structure and function, enzymes, metabolic transformations, photosynthesis.

482. Biochemistry 2. (3:3:0) F, Sp Prerequisite: Biol 360; Chem 481 or equivalent.
Second-semester biochemistry. Nucleic acid biochemistry and molecular biology: nucleotide metabolism, chromosome and chromatin structure, DNA structure and replication, RNA transcription and gene expression, protein synthesis and regulation, eukaryotic gene systems, signal transduction.

489. Structural Biochemistry. (3:3:0) On dem. Prerequisite: Chem 481 or equivalent.
Molecular structures of proteins, RNA and DNA as determinants of biological function. Topics include thermodynamics of folding and binding, structural determination, spectroscopy, modeling, protein recognition.

496R. Academic Internship: Chemistry and Biochemistry. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent; Chem 201 or concurrent enrollment or special safety training.
Research experience in an industrial, academic, or government laboratory in collaboration with a BYU faculty colleague/supervisor.

497R. Undergraduate Special Problems. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent and Chem 201 or concurrent enrollment or special safety training.
Undergraduate research experience .

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent and Chem 201 or concurrent enrollment or special safety training.

500-Level Graduate Courses (available to advanced undergraduates)

501. Safe Chemical Practices. (0.5:0.5:0) W 1st blk.
University and department safety policies. Chemical hazards, fire safety, and biosafety, including laws.

514. Inorganic Chemistry. (3:3:0) F Prerequisite: Chem 462; or 462, 468; or equivalents.
In-depth treatment of theoretical concepts in inorganic chemistry and the descriptive chemistry of some of the elements.

518. Advanced Inorganic Laboratory. (2:0:6) W Prerequisite: Chem 201 or concurrent enrollment; Chem 514.
Syntheses, characterization, and properties of materials; coordination and organometallic compounds.

521. Instrumental Analysis Lecture. (2:2:0) F Prerequisite: Chem 462 or equivalent.
Modern instrumental methods and basic principles of instrumentation.

523. Instrumental Analysis Laboratory. (2:0:6) W Prerequisite: Chem 521; Chem 201 or 501 or concurrent enrollment.
Continuation of Chem 521. Laboratory experience with modern analytical instrumentation.

552. Advanced Organic Chemistry. (3:3:0) F Prerequisite: Chem 351, 352; 461 or 468; 462; or equivalents.
Physical aspects of organic chemistry; mechanisms, reaction intermediates, bonding, stereochemical and stereoelectronic effects, molecular orbital theory, Lewis acidity and basicity.

553. Advanced Organic Chemistry. (3:3:0) W Prerequisite: Chem 351, 352; or equivalents.
Synthetic aspects of organic chemistry; oxidations, reductions, concerted reactions, stereoselectivity, synthetic equivalents, protecting groups. Examples of natural product total synthesis.

555. Organic Spectroscopic Identification. (3:3:0) F Prerequisite: Chem 352, 354; or equivalents.
Theory and practice of spectrometric methods of identifying organic compounds, including infrared, ultraviolet, nuclear magnetic resonance, and mass spectrometries.

561. Chemical Thermodynamics. (3:3:0) On dem. Prerequisite: Chem 461, 462; or equivalents.
Development of the principles of chemical thermodynamics, including laws, pure materials, mixtures, equilibria, and elementary statistical mechanics.

563. Reaction Kinetics. (3:3:0) W alt. yr. Prerequisite: Chem 461, 462; or equivalents.
Theoretical aspects of chemical kinetics in the gas phase and in solution. Rates and mechanisms in solution, rapid reactions, and other topics.

565. Introduction to Quantum Chemistry. (3:3:0) F Prerequisite: Chem 461 or 468; 462; or equivalents.
Introduction to physical and mathematical aspects of quantum theory, emphasizing application of the Schrodinger wave equation to chemical systems.

567. Statistical Mechanics. (3:3:0) W alt. yr. Prerequisite: Chem 461, 462; or equivalents. Recommended: Chem 565.
Introduction to classical and quantum statistical mechanics, including Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Applications of statistical thermodynamics to gases, liquids, and solids.

569. Fundamentals of Spectroscopy. (3:3:0) W alt. yr. Prerequisite: Chem 462 or equivalent.
Atomic and molecular spectroscopy and application of group theoretical concepts. Types of experiments and interpretation of data.

581. Advanced Biochemical Methodology 1. (3:3:0) F Prerequisite: Chem 482 or equivalent.
First of two required courses for biochemistry graduate students. Physical methods used in biochemical research, including centrifugation, structural determinations, and use of radioactivity and spectroscopy.

583. Advanced Biochemical Methodology 2. (3:3:0) W Prerequisite: Chem 482 or equivalent.
Second of two required courses for biochemistry graduate students. Molecular biological methods used in biochemistry, including immunotechniques, bioinformatics, and selected recombinant DNA techniques.

584. Biochemistry Laboratory/Proteins. (3:1:2) F, W Prerequisite: Chem 481 or equivalent.
Introduction to current biochemical research procedures including spectrophotometry, chromatography, electrophoresis, and immunological techniques. Protein over-expression; isolation and characterization methods. Enzyme kinetics and protein-ligand interactions. Introduction to bioinformatics.

586. Biochemistry Laboratory/Nucleic Acids. (3:1:2) F, W Prerequisite: Chem 482 or equivalent.
Laboratory course covering major techniques involved in isolation, amplification, and cloning of recombinant DNA as well as isolation, synthesis, translation, and identification of RNA.

594R. General Seminar. (0.5:1:0 ea.) F, W
Research topics presented by faculty and visiting scientists. Required every semester in residence of all senior BS majors and graduate students in chemistry and biochemistry.

596R. Special Topics in Chemistry. (1–3:3:0 ea.) On dem.

Graduate Courses

For 600- and 700-level courses, see the 2007–2008 BYU Graduate Catalog.

Chemistry and Biochemistry Faculty

Professors

Andrus, Merritt B. (1997) BS, Brigham Young U., 1986; PhD, U. of Utah, 1991.
Boerio-Goates, Juliana (1981) BA, Seton Hill Coll., 1975; MS, PhD, U. of Michigan, 1977, 1979.
Burton, Gregory F. (1997) BS, U. of Utah, 1975; MS, Brigham Young U., 1985; PhD, Virginia Commonwealth U., 1989.
Dearden, David V. (1994) BS, Brigham Young U., 1983; PhD, California Inst. of Technology, 1989.
Eatough, Delbert J. (1971) BS, PhD, Brigham Young U., 1964, 1967.
Farnsworth, Paul B. (1981) BS, Brigham Young U., 1977; PhD, U. of Wisconsin, Madison, 1981.
Fleming, Steven A. (1985) BS, U. of Utah, 1978; PhD, U. of Wisconsin, Madison, 1984.
Goates, Steven R. (1981) BS, Brigham Young U., 1976; MS, PhD, U. of Michigan, 1977, 1981.
Lamb, John D. (1985) BS, PhD, Brigham Young U., 1971, 1978.
Lee, Milton L. (1976) BA, U. of Utah, 1971; PhD, Indiana U., 1975.
Nordmeyer, Francis R. (1972) BA, Wabash Coll., 1961; MA, Wesleyan U., 1964; PhD, Stanford U., 1967.
Savage, Paul B. (1995) BS, Brigham Young U., 1988; PhD, U. of Wisconsin, 1993.
Simmons, Daniel L. (1989) BS, MS, Brigham Young U., 1978, 1980; PhD, U. of Wisconsin, Madison, 1986.
Willardson, Barry M. (1996) BA, Brigham Young U., 1984; PhD, Purdue U., 1990.
Woolley, Earl M. (1970) BS, PhD, Brigham Young U., 1966, 1969.
Zimmerman, S. Scott (1978) BS, Brigham Young U., 1969; PhD, Florida State U., 1973.

Associate Professors

Graves, Steven W. (1998) BA, U. of Utah, 1969; MPhil, PhD, Yale U., 1972, 1978.
Harrison, Roger G. (1995) BS, Utah State U., 1986; PhD, U. of Utah, 1993.
Linford, Matthew R. (2000) BS, Brigham Young U., 1990; PhD, Stanford U., 1996.
Peterson, Matt A. (1995) BS, Utah State U., 1987; PhD, U. Of Arizona, 1992.
Shirts, Randall B. (1991) BS, Brigham Young U., 1972; AM, PhD, Harvard U., 1978, 1979.
Woodfield, Brian F. (1997) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of California, Berkeley, 1995.
Woolley, Adam T. (2000) BS, Brigham Young U., 1992; PhD, U. of California, Berkeley, 1997.

Assistant Professors

Asplund, Matthew C. (2000) BS, Brigham Young U., 1992; PhD, U. of California, Berkeley, 1998.
Austin, Daniel E. (2005) BS, Brigham Young U., 1998; PhD, California Inst. of Technology, 2002.
Belnap, David M. (2004) BS, Brigham Young U., 1989; PhD, Purdue U., 1995.
Buskirk, Allen R. (2004) BS, Brigham Young U., 1999; PhD, Harvard U., 2004.
Castle, Steven L. (2002) BS, Brigham Young U., 1995; PhD, The Scripps Research Inst., 2000.
Hansen, Jaron C. (2005) BS, Utah State U., 1997; PhD, Purdue U., 2002.
Sevy, Eric T. (2001) BS Brigham Young U., 1994; MA, MPhil, PhD, Columbia U., 1995, 1998, 1999.
Vollmer-Snarr, Heidi R. (2002) BS, U. of Utah, 1997; DPhil, Oxford U., England, 2000.

Associate Teaching Professors

Brown, Philip R. (1999) BS, PhD, Brigham Young U., 1982, 1986.
Hinshaw, Barbara C. (1989) BA, Westminster Coll., 1966; MS, U. of Utah, 1969.
Wood, Steven G. (2001) BS, MS, PhD, Brigham Young U., 1973, 1975, 1983.

Assistant Teaching Professor

Nielson, Jennifer (2004) BS, Brigham Young U., 1988; MS, PhD, U. of California, San Diego, 1992, 1997.

Assistant Research Professor

Herron, Steven R. (2004) BS, Brigham Young U., 1992; MS, U. of California, Riverside, 1995; PhD, U. of California, Irvine, 2001.

Emeriti

Bills, James L. (1963) BS, U. of Utah, 1958; PhD, Massachusetts Inst. of Technology, 1963.
Blackham, Angus Udell (1952) BA, Brigham Young U., 1949; MA, PhD, U. of Cincinnati, 1950, 1952.
Bradshaw, Jerald S. (1966) BS, U. of Utah, 1955; PhD, U. of California, Los Angeles, 1963.
Broadbent, H. Smith (1946) BS, Brigham Young U., 1942; PhD, Iowa State U. of Science and Technology, 1946.
Butler, Eliot A. (1956) BS, PhD, California Inst. of Technology, 1952, 1956.
Cannon, John Francis (1970) BS, PhD, Brigham Young U., 1965, 1969.
Cluff, Coran L. (1960) BS, Northern Arizona U., 1952; MS, PhD, U. of Michigan, 1955, 1961.
Dalley, Nelson Kent (1968) BS, MS, Brigham Young U., 1960, 1964; PhD, U. of Texas, Austin, 1968.
Goates, J. Rex (1947) BS, Brigham Young U., 1942; PhD, U. of Wisconsin, Madison, 1947.
Hall, H. Tracy (1955) BS, MS, PhD, U. of Utah, 1942, 1943, 1948.
Hansen, Lee Duane (1972) BS, PhD, Brigham Young U., 1962, 1965.
Hawkins, Richard T. (1959) BA, Brigham Young U., 1951; PhD, U. of Illinois, 1959.
Izatt, Reed M. (1956) BS, Utah State U., 1951; PhD, Pennsylvania State U., 1954.
Kuchar, Marvin C. J. (1979) AA, Eastern Arizona Coll., 1955; BS, PhD, Brigham Young U., 1957, 1963.
Mangelson, Nolan F. (1969) AS, Snow Coll., 1959; BS, Utah State U., 1961; MS, Brigham Young U., 1963; PhD, U. of California, Berkeley, 1967.
Mangum, John H. (1963) BS, MS, Brigham Young U., 1957, 1959; PhD, U. of Washington, 1963.
Nelson, K. LeRoi (1956) BS, Utah State U., 1948; PhD, Purdue U., 1952.
Ott, J. Bevan (1960) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of California, Berkeley, 1959.

Owen, Noel L. (1987) BSc, U. of Wales, 1960; PhD, Cambridge U., England, 1964; DSc, U. of Wales, 1983.
Paul, Edward G. (1965) BS, PhD, U. of Utah, 1958, 1962.
Robins, Morris J. (1986) BA, U. of Utah, 1961; PhD, Arizona State U., 1965.
Smith, Marvin A. (1966) BS, Utah State U., 1960; MS, PhD, U. of Wisconsin, Madison, 1962, 1964.
Snow, Richard L. (1957) BS, PhD, U. of Utah, 1953, 1957.
Thorne, James M. (1966) BA, Utah State U., 1961; PhD, U. of California, Berkeley, 1966.
Vernon, Leo P. (1970) BA, Brigham Young U., 1948; PhD, Iowa State U. of Science and Technology, 1951.
Watt, Gerald D. (1989) BA, PhD, Brigham Young U., 1962, 1966.
Wilson, Byron J. (1965) BS, Idaho State U., 1955; MA, Southern Illinois U. 1958; PhD, U. of Washington, 1961.

Chinese

See Asian and Near Eastern Languages.

Church History and Doctrine

See Religious Education in Academic Departments, Degrees, and Courses section of this catalog.

Civil and Environmental Engineering

Steven E. Benzley, Chair
368-C CB, (801) 422-2811

Rollin H. Hotchkiss, Associate Chair
370 CB, (801) 422-2811

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325
www.et.byu.edu/ce/

Admission to Degree Program

The degree program in the Department of Civil and Environmental Engineering is open enrollment.

The Discipline

The BYU Department of Civil and Environmental Engineering prepares students for professional involvement in structural, water resources, environmental, geotechnical (soils), and transportation engineering.

Structural engineers analyze and design buildings, bridges, offshore oil platforms, aircraft, and artificial limbs. The engineer applies principles of physics, mathematics, and engineering to develop efficient yet safe designs. Sophisticated computer models are used in these analyses. Materials used by structural engineers include steel, aluminum, concrete, wood, graphite, fiberglass, kevlar, ceramics, and plastics.

Water resource and environmental engineers design pipeline systems, water treatment plants, dams, flood control structures, waste disposal sites, and environmental restoration projects. Computer modeling and analyses are used in design and to forecast storm runoff, flooding, and movement of contaminants in surface and subsurface waters.

Environmental engineers evaluate and reduce pollutants from natural, human, agricultural, and industrial sources to preserve the beauty and quality of air, land, and water.

Geotechnical engineers design structures composed of or located within earth materials, including foundations for buildings and bridges, retaining walls, earth dams, highway embankments, tunnels, and liners for landfills. Field and laboratory tests on soil and rock, along with empirical and computer models, are used to assure safety and economy in design.

Traffic and transportation engineers apply scientific principles to the planning, design, construction, operation, and management of transportation systems, including highways, airports, and mass transit facilities. Transportation engineers are responsible for the safe, rapid, comfortable, convenient, economical, and environmentally compatible movement of people and goods. Computer models and simulations are frequently used by traffic engineers for geometric design and for planning, operating, and managing transportation networks, including intermodal systems. Next to national defense, transportation is the largest sector in the U.S. economy, accounting for approximately 16 percent of the gross domestic product (GDP); many engineers work in this field.

Educational Objectives

The objective of the undergraduate program in civil and environmental engineering is to develop the following attributes in students graduating from the program:

1. An understanding of fundamental principles of mathematics and science.
2. An understanding of fundamental engineering science.
3. An understanding of geotechnical engineering.
4. An understanding of structural engineering.
5. An understanding of transportation engineering.

6. An understanding of water resources and environmental engineering.
7. The ability to design civil engineering systems and solve open-ended problems.
8. The ability to communicate ideas effectively.
9. The ability to use modern engineering tools.
10. An understanding of professional practice and a commitment to lifelong learning.
11. An awareness of cultural, societal, political, and environmental issues.
12. A commitment to serve as professional engineers of integrity and faith.

Career Opportunities

Civil engineers are employed in industry, private consulting, and government. Industries employing many civil and environmental engineers include construction, transportation, aerospace, petroleum, and mining. Many civil engineers enter private consulting practices, and many eventually establish their own firms. The yellow-page directories for major cities generally list many civil, structural, environmental, geotechnical, and transportation engineering firms.

Civil engineers are also employed by national, local, and state governments. Most cities and counties have engineering departments staffed largely by civil engineers. Departments of transportation, environmental protection agencies, the Army Corps of Engineers, and the Bureau of Reclamation hire many civil engineers.

Civil engineering may be used as a preprofessional program for careers in architecture, law, and business.

Because civil engineeers design structures that affect public health and safety, licensure as a Professional Engineer is required for most positions. A necessary prerequisite for licensure is graduation from an accredited engineering program. The civil engineering program is fully accredited by the Accreditation Board for Engineering and Technology (ABET).

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Civil Engineering

Students should see the department for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Civil Engineering
PhD Civil Engineering

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Students are strongly encouraged to consult with the department regarding their course scheduling.

Qualified students from junior colleges with adequate preengineering programs can normally complete the BS degree in two additional years. Students who transfer into the department from other universities or from other departments at BYU will be placed in the civil and environmental engineering program according to an evaluation of completed work. Prospective transfer students should contact the department as soon as possible so that any variations can be accommodated with a minimum loss of time.

A maximum of 9 credit hours with D grades are allowed in Civil and Environmental Engineering Department classes. Clearance for graduation will be denied until D credits are reduced to 9 hours or less.

Integrated Master's Program. Although abundant professional employment is available with a bachelor's degree, professional opportunities are markedly improved by completing a master's degree.

During the junior year of the civil engineering curriculum, those who desire to obtain a master's degree in civil engineering (MS) may enter the integrated master's program. In this program students may work toward both the bachelor's and master's degrees concurrently.

Applicants to the integrated program must have a cumulative GPA of 2.5 or higher. All credit to be counted toward the master's degree must carry a cumulative GPA of 3.0 or better. When students are within 30 credit hours of completing the graduate degree, they must also apply for and be admitted to graduate school.

Professional Engineer Registration. The Civil and Environmental Engineering Department encourages graduates to become Registered Professional Engineers. General qualifications for becoming registered are explained in the Ira A. Fulton College of Engineering and Technology section of this catalog. This status is vital to engineering practice in the public sector and to much consulting work. The civil and environmental engineering program prepares graduates to successfully complete the Fundamentals of Engineering (FE) examination, an important step in becoming registered. Students who wish to strengthen their preparation for the FE exam should select the required engineering courses with this need in mind.

BS Civil Engineering (92–93 hours*)

Major Requirements

1. Complete the following courses:
   CE En 100A,B, 103, 112, 113, 200A,B, 203, 204, 270, 300A,B, 305, 321, 332, 341, 351, 361, 400A,B, 424, 470.

   Note: Students must be enrolled in a seminar course each semester, from the time the major is declared until graduation. Begin with CE En 100A,B and continue in order with 200A,B, 300A,B, 400A,B.
2. Complete one course from the following:
   CE En 431, 433.
3. Complete one of the following options:
   Either Math 302, 303
   Or Math 214, 334, 343.
4. Complete one course from the following:
   Chem 106, 351.
   Math 311.
   MMBio 221.
   Phscs 220, 222.
5. Complete the following supporting courses:
   Chem 105.
   Engl 316.
   Geol 330.
   Math 112, 113.
   Phscs 123.
   Stat 221.

6. Complete 9 hours of technical electives from the following courses:

   CE En 414, 422, 429, 431, 433, 461, 500, 501, 503, 504, 505, 506, 508, 523, 524, 525, 526, 528, 531, 535, 540, 542, 543, 545, 547, 551, 555, 562, 563, 565, 570, 572, 575, 580, 594R.

   Note: 3 of the 9 hours may come from:

   Ch En 273, 378.
   EC En 301R.
   Me En 321.

*Hours include courses that may fulfill university core requirements.

Civil and Environmental Engineering (CE En)

Undergraduate Courses

100A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W

Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

103. Engineering Mechanics—Statics. (2:2:0) F, W, Su Independent Study also. Prerequisite: Math 112 or concurrent enrollment.

Concepts of mechanics: force systems in equilibrium, resultants, friction, centroids, utilization of vector algebra.

112. Engineering Drafting with CAD Applications. (3:3:0) F, W

Structural and component drafting, emphasizing computer-automated (CAD) systems. Concepts include applied and descriptive geometry, multiview representation, sectional views, dimensional practices, and axonometric sketching.

113. Engineering Measurements. (3:2:3) F, Sp Prerequisite: Math 111, CE En 112.

Measurement of horizontal and vertical distances and angles to locate engineering projects including profiles, plane and topographical mapping, site layout, and earthwork.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: consent of both department chair and cooperative education coordinator.

Work experience evaluated by supervisor and posted on student's transcript.

200A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 100A,B.

Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

203. Engineering Mechanics—Mechanics of Materials. (3:3:0) F, W, Su Independent Study also. Prerequisite: CE En 103.

Fundamental concepts of elastic stress and strain relations; cylinders and spheres; torsion; beam theory, including bending stresses; deflections; and two-dimensional elastic theory.

204. Engineering Mechanics—Dynamics. (3:3:0) F, W, Su Independent Study also. Prerequisite: CE En 103 or Phscs 121.

Concepts of dynamics applied to particles, systems of particles, rigid bodies, vibration systems, and nonrigid particles systems.

270. Computational Methods. (3:1:2) F, W Prerequisite: Math 113 or concurrent enrollment.

Numerical methods and computational techniques for solving civil engineering problems.

300A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 200A,B.

Technical and professional activities in civil engineering. College Lecture attendance required.

302. Structures and Strength of Materials Fundamentals. (4:4:0) For nonmajors only. F Prerequisite: Phscs 105, CE En 103.

Structural mechanics and strength of materials for soils, woods, concrete, and steel applied to practical construction situations.

305. Civil Engineering Materials. (3:2:3) F, W Prerequisite: CE En 203, Stat 221.

Molecular structure and mechanical behavior of civil engineering materials; failure mechanisms; laboratory testing.

321. Structural Analysis. (3:3:0) F, W Prerequisite: CE En 203, 270.

Deflection analysis by the method of virtual work. Analysis of statically indeterminate structures by the flexibility method, the stiffness method, and moment distribution. Computer analysis of structures.

332. Hydraulics and Fluid Flow Theory. (3:2:3) F, W, Su even yr.; F, Sp odd yr. Independent Study also. Prerequisite: CE En 204, 270, or concurrent enrollment.

Fluid properties, fluid statics and dynamics, viscous flow, boundary layers, concepts of pipe and open-channel flow.

341. Elementary Soil Mechanics. (3:2:3) F, W Prerequisite: CE En 203 or instructor's consent; CE En 332, Geol 330, or concurrent enrollment.

Determination of stresses in soils, soil strength, consolidation, and settlement. Applications in fluid flow, lateral earth pressure, bearing pressure, and slope stability.

351. Environmental Engineering. (3:3:0) W, Su even yr.; F, Sp odd yr. Prerequisite: Chem 105, Stat 221.

Environmental concerns, problems, and evaluation methodology; pollution control and engineering management approaches.

361. Introduction to Transportation Engineering. (3:2:3) F, Sp Prerequisite: CE En 112, 113, 270, Stat 221.

Transportation system characteristics, traffic engineering, traffic operations, transportation planning, highway geometric design, pavement design, highway safety, public transport.

400A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 300A,B.

Technical and professional activities in civil engineering. College Lecture attendance required.

414. Engineering Applications of GIS. (3:3:0) W Prerequisite: senior status.

Introduction to GIS concepts. Data acquisition and database formulation including use of GPS. GIS uses in civil engineering.

421. Structural Steel Design. (3:3:0) F Prerequisite: CE En 305, 321; or equivalents.

Compression and tension of steel members, beams, and beam-columns. Elastic and inelastic lateral-torsional buckling. Structural fasteners. Emphasizes LFRD.

424. Reinforced Concrete Design. (3:3:0) F, W Prerequisite: CE En 305, 321.

Theory and design of reinforced concrete, including columns, beams, slabs, and footings; elastic and ultimate-strength methods of analysis.

429. Timber Design. (3:3:0) F Prerequisite: CE En 305, 321.

Timber species, composition, and grades; design of beams, straight and tapered glue-lam girders, columns, connections, trusses, shear walls, and structural systems.

431. Hydrology. (3:2:3) W; Sp even yr.; Su odd yr. Prerequisite: CE En 332, 351.

Waters of the earth, their occurrence, circulation, and distribution. Relationships among precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff.

433. Hydraulic Engineering. (3:3:0) F; Sp odd yr.; Su even yr. Prerequisite: CE En 332, 351.

Application of fluid mechanics principles to analysis and design of hydraulic structures and systems.

461. Geometric Design of Highways. (3:3:0) Sp Prerequisite: CE En 361.

Designing visual aspects of highways: highway classification, design controls and criteria, design elements, vertical and horizontal alignment, cross section, intersections, interchanges, capacity analysis.

470. Civil Engineering Practice and Design. (3:2:3) F, W Prerequisite: civil engineering senior standing.
Engineering economic analysis, professional practice issues, and experience in completion of a civil engineering design project by applying appropriate engineering standards and multiple realistic constraints.

493R. Civil and Environmental Engineering Practicum. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

498R. Directed Studies in Civil and Environmental Engineering. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

500. (CE En-Me En) Design and Materials Applications. (3:3:0) W Prerequisite: Me En 372 or CE En 321 or equivalent.
Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability—all as applied to mechanical design.

501. (CE En-Me En) Stress Analysis and Design of Mechanical Structures. (3:3:0) Sp Prerequisite: CE En 321 or Me En 372 or equivalent.
Stress analysis and deflection of structures; general bending and torsion with computer applications to mechanical and aerospace structure design.

503. (CE En-Me En) Plasticity and Fracture. (3:3:0) F Prerequisite: CE En 203; Me En 250; Math 303; senior standing or instructor's consent.
Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

504. (CE En-Me En) Computer Structural Analysis and Optimization. (3:3:0) F Prerequisite: linear algebra; CE En 321 or Me En 372 or equivalent.
Matrix analysis of rods, shafts, beams, trusses, frames, and grids using the generalized stiffness method. Optimization methods for these structures. Organizing computer programs for structural analysis and structural optimization.

505. Portland Cement Concrete Mixture Design and Analysis. (3:2:3) Prerequisite: CE En 305 or equivalent.
Properties and testing of freshly mixed and hardened concrete and constituent materials; concrete mixture design and analysis; concrete construction practices; laboratory experimentation.

506. (CE En-Me En) Continuum Mechanics and Finite Elements. (3:3:0) F Prerequisite: linear algebra: CE En 321 or Me En 372 or equivalent.
Equilibrium, constitutive, and compatibility equations; closed-form solutions from elasticity; finite element theory, programming, and usage; membrane, axisymmetric, and solid elements. Application to heat transfer, fluid mechanics, and seepage.

508. (CE En-Me En) Structural Dynamics. (3:3:0) F Prerequisite: CE En 321 or Me En 372 or equivalent.
Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems.

521. Seismic-Resistant Steel Buildings. (3:3:0) W Prerequisite: CE En 421 or equivalent.
Background and development of UBC seismic provisions, analysis and design of multistory steel frames, in-depth treatment of shear and moment connections, design of horizontal and vertical diaphragms.

523. (CE En- Me En) Aircraft Structures. (3:3:0) W Prerequisite: CE En 305, 321; or Me En 250, 372; or equivalents.
Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

524. Reinforced Concrete Buildings. (3:3:0) W Prerequisite: CE En 424 or equivalent.
Design for earthquake resistance; torsion effects, slendor columns, and two-way slabs.

525. Bridge Structures. (3:3:0) F Prerequisite: CE En 422, 424; or equivalents.
Design of composite, continuous beam, and girder bridges, including piers, abutments, floor systems, and bearings; field trips to observe bridge construction and fabrication.

526. Prestressed Concrete. (3:3:0) Sp odd yr. Prerequisite: CE En 424 or equivalent.
Strength, behavior, and design of prestressed reinforced concrete members and structures, emphasizing pretensioned, precast construction.

528. Masonry Design. (3:3:0) Sp even yr. Prerequisite: CE En 424 or equivalent.
Introduction to analysis, design, and construction of masonry structures. Compressive, tensile, flexural, and shear behavior of masonry structural components.

531. Principles of Hydrologic Modeling. (3:2:3) F Prerequisite: CE En 431 or equivalent.
Advanced hydrologic and hydraulic principles with an emphasis on modeling for the purpose of planning and designing drainage, flood control, and other water resource facilities.

535. Hydraulic Design of Channels and Control Structures. (3:2:3) W Prerequisite: CE En 433 or equivalent.
Design of water conveyance channels and control structures, including siphons, chutes, weirs, flumes, dams, spillways, and outlet works.

540. Geo-Environmental Engineering. (3:3:0) Prerequisite: CE En 341 or equivalent.
Geotechnical aspects of environmental engineering. Topics include municipal and hazardous solid waste landfill design and characterization and remediation techniques for contaminated soil and groundwater.

542. Foundation Engineering. (3:3:0) W; Sp even yr. Prerequisite: CE En 341 or equivalent.
Soil investigation, bearing capacity and settlement, design of spread footings, combined footings, mat foundations, pile foundations, and drilled shafts.

543. Earth- and Rock-Fill Structures. (3:3:0) Prerequisite: CE En 341 or equivalent.
Design and construction of earth- and rock-fill dams, including selecting dam sites and materials, and applying seepage and pore pressure studies, shearing strength data, stability analysis, and construction controls.

545. Geotechnical Analysis of Earthquake Phenomena. (3:3:0) Prerequisite: CE En 321, 341; or equivalents.
Earthquake magnitude and intensity; design ground motions, elementary dynamics of structures; response spectra; building code provisions; liquefaction and ground failure.

547. Seepage and Groundwater Modeling. (3:3:0) Prerequisite: CE En 341, 431; or equivalents.
Techniques for modeling groundwater flow on a regional and local basis. Seepage analysis of levees, excavations, and earth dams.

551. Water Treatment Facilities Design. (3:2:3) F Prerequisite: CE En 351 or equivalent.
Evaluation, selection, and design of water treatment facilities.

555. Environmental Chemistry. (3:2:4) F Prerequisite: CE En 351 or equivalent.
Chemical theory and calculation supporting analysis of major organic and inorganic constituents in environmental engineering, focusing on theoretical understanding of the chemical processes.

562. Traffic Engineering: Characteristics and Operations. (3:3:0) F Prerequisite: CE En 361 or equivalent.

Traffic flow theory, traffic operations, characteristics of drivers and vehicles, parking facilities, at-grade intersections, channelization, traffic control devices, signals.

563. Pavement Design. (3:3:0) F Prerequisite: CE En 305, 361; or equivalents.

Design, construction, evaluation, maintenance, and rehabilitation of flexible and rigid pavements; influence of traffic and environmental factors; mechanistic analysis of pavement structures using computer software.

565. Urban Transportation Planning. (3:3:0) W Prerequisite: CE En 361 or instructor's consent.

Urban transportation planning and decision making, intermodal transportation, land-use transportation interrelationships, transportation demand modeling, site impact analysis, sustainable transportation, livable cities.

570. (CE En-Me En) Computer-Aided Engineering Software Development. (3:3:0) F on dem. Prerequisite: Me En 373 or C progamming.

Programming methods for the development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

572. (CE En-Me En) Computer-Aided Geometric Design. (3:3:0) W Prerequisite: proficiency in C programming.

Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, and free-form deformation. Several programming projects.

575. (CE En-Me En) Optimization Techniques in Engineering. (3:3:0) W Prerequisite: Math 302 and FORTRAN, C, or similar computer language.

Application of computer optimization techniques to constrained engineering design. Theory and use of state-of-the-art computer routines. Robust design methods.

580. Hazardous Waste Management and Control. (3:3:0) W Prerequisite: CE En 351 or instructor's consent.

Hazardous waste statutes and regulations; introduction to hazardous waste treatment, storage, disposal, and monitoring techniques.

594R. Selected Problems in Civil and Environmental Engineering. (1–3:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Civil and Environmental Engineering Faculty

Professors

Balling, Richard J. (1982) BA, BS, U. of Utah, 1978; MS, PhD, U. of California, Berkeley, 1979, 1982.

Benzley, Steven E. (1980) BES, MS, Brigham Young U., 1966, 1967; PhD, U. of California, Davis, 1971.

Christiansen, Henry N. (1965) BS, Utah State U., 1957; MS, PhD, Stanford U., 1958, 1962.

Hotchkiss, Rollin H. (2005) BS, Brigham Young U., 1976; MS, Utah State U., 1979; PhD, U. of Minnesota, 1989.

Jensen, David W. (1993) BS, Brigham Young U., 1980; SM, PhD, Massachusetts Inst. of Technology, 1981, 1986.

Jones, Norman L. (1991) BS, Brigham Young U., 1986; MS, PhD, U. of Texas, Austin, 1988, 1990.

Miller, A. Woodruff (1974) BES, Brigham Young U., 1969; MS, ENG, PhD, Stanford U., 1970, 1972, 1975.

Rollins, Kyle M. (1987) BS, Brigham Young U., 1982; PhD, U. of California, Berkeley, 1987.

Saito, Mitsuru (1997) BS, Brigham Young U., 1981; MS, U. of Virginia, 1983; PhD, Purdue U., 1988.

Associate Professors

Borup, M. Brett (1987) BS, Humboldt State U., 1980; MS, Utah State U., 1982; PhD, Clemson U., 1985.

Fonseca, Fernando (1996) BS, MS, Brigham Young U., 1987, 1988; PhD, U. of Illinois, 1997.

Nelson, Jim (1996) BS, MS, PhD, Brigham Young U., 1989, 1990, 1994.

Williams, Gustavious P. (2004) BS, Brigham Young U., 1987; PhD, Northwestern U., 1994.

Assistant Professors

Gerber, Travis M. (2003) BS, MS, PhD, Brigham Young U., 1994, 1995, 2003.

Guthrie, W. Spencer (2002) BS, Utah State U., 1998; MS, PhD, Texas A&M U., 1999, 2002.

Richards, Paul W. (2006) BS, Brigham Young U., 2000; MS, PhD, U. of California, San Diego, 2003, 2004.

Schultz, Grant G. (2004) BS, MS, Brigham Young U., 1994, 1995; PhD, Texas A&M U., 2003.

Associate Research Professor

Zundel, Alan K. (1997) BS, MS, PhD, Brigham Young U., 1988, 1989, 1994.

Emeriti

Budge, W. Don (1964) BS, MS, Utah State U., 1959, 1961; PhD, U. of Colorado, 1964.

Durrant, S. Olani (1970) BES, MS, Brigham Young U., 1962, 1963; ScD, New Mexico State U., 1969.

Firmage, D. Allan (1955) BS, U. of Utah, 1940; MS, Massachusetts Inst. of Technology, 1941.

Goodwin, Reese J. (1967) BES, MS, Brigham Young U., 1962, 1963; PhD, U. of Utah, 1976.

Merritt, LaVere B. (1970) BS, MS, U. of Utah, 1963, 1966; PhD, U. of Washington, 1970.

Thurgood, Glen S. (1967) BES, MS, Brigham Young U., 1965, 1967; PhD, Texas A&M U., 1975.

Wallace, Lynn P. (1983) BS, U. of Utah, 1963; MS, PhD, West Virginia U., 1968, 1970.

Wilson, Arnold (1957) BS, MS, Brigham Young U., 1957, 1962; PhD, Oklahoma State U., 1973.

Youd, T. Leslie (1984) BES, Brigham Young U., 1964; PhD, Iowa State U., 1967.

Classics

See Humanities, Classics, and Comparative Literature section of this catalog.

Communication Disorders

David L. McPherson, Chair
136 TLRB, (801) 422-4318

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

The degree program in the Department of Communication Disorders is open enrollment.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Communication Disorders
Minor	Communication Disorders

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Communication Disorders

For more information see the BYU 2007–2008 Graduate Catalog.

BS Communication Disorders (51 hours*)

The Discipline

Audiology is a relatively new discipline that relies on technology to deal with its primary concern, the measurement of hearing and hearing loss. Audiology includes studying the nervous system to learn how we sense, perceive, and derive information from the sense organs. Audiology students also learn about the development of speech and language, the anatomy and physiology of the ear, a variety of electronic test instruments that reveal the function of the intricate processes involved in hearing, and disorders and diseases of hearing. Physicians use audiological findings to diagnose and treat hearing problems. This information is also used in counseling the hearing impaired and for prescribing hearing aids. Teachers use the knowledge to understand and help children with hearing impairments.

The discipline of speech-language pathology emerged to help people who have lost or have never had the ability to speak normally. It serves persons with speech and language disorders such as stuttering, articulation problems, aphasia, voice problems, language delay, and similar disabilities. Students learn about speech and language development, the anatomy and physiology of the speech mechanism, the neurology of perception and production of speech and language, impairments that cause speech and language disorders, and communication disorders remediation. Professionals work in public schools, hospitals, private or community clinics, or private practice.

Career Opportunities

This is a preprofessional program leading to a master's degree that is required for entrance into the profession.

Major Requirements

Complete the following:

ASL 101.
ComD 133, 230, 320, 330, 331, 334, 350, 351, 421, 438, 442, 450.
Math 110 (or equivalent).
Phscs 167.
PDBio 220.
Stat 221.

*Hours include courses that may fulfill university core requirements.

Minor Communication Disorders (16 hours)

Minor Requirements

1. Complete the following:
   ComD 133.
2. Complete an additional 14 hours of ComD courses.

Communication Disorders (ComD)

Undergraduate Courses

133. Introduction to Speech-Language Pathology and Audiology. (2:2:2) F, W
Overview of communication disorders, assessment strategies, and treatments.

230. Language Science. (3:3:1) F, W
Morphology, syntax, and semantic roles in language of children and adults; uses both manual and computer-assisted methods.

320. Speech Anatomy. (3:3:1) F, W Prerequisite: PDBio 220.
Basic anatomy and physiology of speech mechanisms.

330. Language Development. (3:3:1) F
Overview of how children learn language, including its relationship to cognitive, neural, and social development; language development in bilingual, minority, and handicapped persons.

331. Phonology. (3:3:1) F
Transcription and analysis of normal and disordered sound production.

334. Basic Hearing Science. (3:3:0) F, W Prerequisite: Phscs 167.
Hearing anatomy, physiology, and science.

350. Language Disorders. (3:3:1) W Prerequisite: ComD 330.
Causes and characteristics of language impairment; techniques for diagnosis, assessment, and treatment of language disorders.

351. Disorders of Articulation and Phonology. (3:3:0) W Prerequisite: ComD 331.
Causes and characteristics of phonological disorders; techniques for diagnosis, assessment, and treatment.

421. Speech Science. (3:3:0) W Prerequisite: ComD 320, Phscs 167.
Laboratory investigation of scientific bases of normal and disordered speech perception and production; for audiologists and speech language pathologists.

438. Hearing Tests and Measures. (3:3:1) F, W Prerequisite: ComD 334.
Theory and practice of auditory assessment.

442. Pediatric Audiology. (3:3:0) F, W Prerequisite: ComD 438.
Basic principles of hearing assessment and aural habilitation in children from birth to eight years.

450. Professional Practices in Schools, Hospitals, and Clinics. (3:3:0) F Prerequisite: ComD 351; 350 and 438 or concurrent enrollment.

Overview of issues related to clinical practice in public schools and other settings.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su

495R. ComD Field Experience. (1–2:Arr.:Arr. ea.) F, W, Su Prerequisite: ComD faculty sponsorship.

Supervised experience in a clinical or educational service–delivery setting under the direction of a faculty member.

500-Level Graduate Courses (available to advanced undergraduates)

544. Psychoacoustics. (2:2:1)

Advanced studies in human psychoacoustics and hearing science.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Communication Disorders Faculty

Professors

Brinton, Bonnie (1990) BA, U. of Utah, 1975; MA, San Jose State U., 1977; PhD, U. of Utah, 1981.

Culatta, Barbara (2000) BS, California State U. of Pennsylvania, 1969; MA, PhD, U. of Pittsburgh, 1970, 1975.

Fujiki, Martin (1990) BS, U. of Idaho, 1972; MS, PhD, U. of Utah, 1974, 1980.

Harris, Richard (1982) BS, North Dakota State U., 1973; MS, U. of Wisconsin, 1974; PhD, Purdue U., 1978.

McPherson, David L. (1991) BS, Brigham Young U., 1967; MA, George Washington U., 1969; PhD, U. of Washington, 1972.

Associate Professors

Channell, Ron W. (1983) BS, MS, Brigham Young U., 1977, 1979; PhD, U. of Utah, 1983.

Dromey, Christopher (2000) BA, Brigham Young U., 1985; MA, State U. of New York, Buffalo, 1990; PhD, U. of Colorado, 1995.

Clinical Associate Professor

Robinson, Lee (1999) BS, MS, Brigham Young U., 1992, 1994.

Assistant Professor

Nissen, Shawn (2002) BA, Brigham Young U., 1994; MA, PhD, Ohio State U., 1998, 2003.

Clinical Assistant Professor

Blair, Nancy (2000) BS, MS, Brigham Young U., 1993, 1995.

Emeriti

Allred, Mildred T. Ravsten (1973) BA, MCD, Brigham Young U., 1952, 1971.

Low, Gordon M. (1964) BS, MS, U. of Utah, 1949, 1950; PhD, U. of Minnesota, Minneapolis, 1955.

Lucido, Bonnie Rae (1979) BS, MS, Brigham Young U., 1964, 1966; PhD, U. of Utah, 1994.

Newman, Parley W. (1966) BS, MS, Utah State U., 1950, 1951; PhD, U. of Iowa, 1954.

Communications

Ed Adams, Chair
360 BRMB, (801) 422-2997

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777

Admission to Degree Program

The degree programs in the Department of Communications have a departmental application process with specific enrollment limitations. Please see the college advisement center for details, telephone 1-877-890-5414, or online at http://cfac.byu.edu/com/.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA Communications
- Emphases:
  - Advertising
  - Broadcast Journalism
  - Communications Studies
  - Print Journalism
  - Public Relations

Minor Communications

Students should see their college advisement center for information concerning admittance to the undergraduate programs.

Graduate Programs and Degrees

MA Mass Communications

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Working under faculty direction, students in the department edit and publish the *Daily Universe* as a laboratory newspaper for the campus, produce daily television broadcasts on local cable, produce @NewsNet.byu.edu for the Internet, plan advertising and public relations campaigns, solve media sales and management problems, and use "new media" in diverse situations.

The Department of Communications sponsors the International Media Studies Program, which seeks to broaden students' awareness of worldwide communications issues and practices. Not only do students have opportunity to study the media systems of other nations through classes and on-site experiences, but media practitioners of other nations are also brought to campus as lecturers and visiting experts.

The department encourages early admission. Students who enroll in Comms 101, 211, and an introductory course and complete the English requirement can apply to the major as early as the second semester of their freshman year.

Departmental Requirements

1. Each student must be formally accepted into a degree program. Contact the college advisement center for admission requirements or online at http://comms.byu.edu.

2. All students must take a campus writing course before applying for admission to the major. The following writing courses fulfill this requirement and satisfy the GE First-Year Writing requirement: Engl 150, Phil 150, or Honrs 150.
3. Complete 80 hours outside the department, of which at least 65 hours must be in the liberal arts and sciences.
4. Except for communication studies students, every student is required to complete an internship. Although the department operates an internship office (280 BRMB) that serves as a clearinghouse for internship information, the responsibility for securing an internship rests with the student. However, students may not embark on any required internship without prior approval from a faculty advisor, completing prerequisite courses with a C– or better, before processing appropriate documents with the Internship Office, and without being enrolled in Comms 399R.
5. Communications students must learn the design software used in several of the communications upper-level courses prior to attending the course. Students can learn the software on their own or take an IT course. Call the IT Office (422-4000) for more information or visit their Web site at http://IT.byu.edu/go/adobepub or http://IT.byu.edu/go/webpub.
   The following software will be used in these courses:
   Adobe Publishing—Comms 330, 331, 421, 428.
   Web Publishing—Comms 485, 487.

BA Communications: Advertising Emphasis (46–58 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The Discipline

Communications majors who choose the advertising emphasis will participate in a program that will give a strong grounding in the liberal arts and sciences, provide a firm grasp of communications theory and principles, and teach practical workplace skills.

In advertising courses students will learn how to use research in studying diverse audiences, to analyze communications problems, and to evaluate communications programs. They will write problem-solving strategies and create advertising and promotion messages to specific target audiences. Creative track students will learn how to concept consumer advertising ads in print and broadcast and will develop a quality portfolio required for entry-level careers in the creative field. Management students will learn how to evaluate and select the most effective media for reaching those target audiences and will gain an understanding of how broadcast, print, and other media are used in the advertising process.

Studies will culminate in the student's participation, as a team member, in creating and presenting a comprehensive and competitive integrated communications campaign that includes research, advertising, and sales promotion.

Career Opportunities

This field provides career opportunities in advertising, media management, and advertising media sales as well as in its creative, research, media planning, and management functions.

Major Requirements

1. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Students must receive a B grade or better to be eligible to apply for admission to the program.
2. Complete the following:
   Comms 101, 211, 230.
3. Apply to the major.
4. Complete the following:
   Comms 300, 317.
5. Complete 9 hours from the following departmental electives:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 411, 412, 449, 480.
6. Complete one of the following tracks:
   a. Management Track:
      1. Complete the following:
         Bus M 340.
         Comms 332, 432, 489.
      2. Complete one course from the following:
         Comms 330, 345.
   b. Creative Track:
      1. Complete the following:
         Comms 331, 433, 489.
      2. Complete one course from the following:
         Comms 330, 345.
      3. Complete a minor in advertising design (15 hours).

      Note: Twelve students will be admitted to the creative track each year based on a screening and portfolio work. Portfolios must be submitted to the department's main office by the twelfth week of winter semester. Late portfolios will not be considered. It will take from four to five semesters to complete the design minor. Students interested in this track should qualify and apply early.
7. After consulting with an advisor, complete an internship in conjunction with 4 hours of the following:
   Comms 399R.
   Note: A C– grade or better in the following prerequisite courses must be achieved before the internship experience:
   Management track: Comms 317; 330 or 345; 332.
   Creative track: Comms 317; 330 or 345; 331.

*Hours include courses that may fulfill university core requirements.

BA Communications: Broadcast Journalism Emphasis (43 hours*)

The Discipline

The study of journalism entails the mastery of working with people to present news and features in a way that reflects events accurately and fully. Students will acquire skills in analytical thinking, lucid writing, and effective interviewing to be able to present a clear and forceful picture of their subject in words, sounds, and images. To have a broad background, students are encouraged to earn more than 60 percent of their credits in other departments, thereby developing a wide understanding of the world and the processes that make society work. In addition, students will become familiar with methods of writing that effectively reach mass audiences—that portray events and people in satisfying ways. Since a wide range of knowledge is essential within the field, students will study libel law, the process of communication, and such areas as the interaction between the mass media and society today.

Career Opportunities

The exciting field of journalism traditionally has offered the allure of working in a profession that has its finger on the changing pulse of society. Whether serving as reporters, anchors, or producers for television, radio, cable, or online outlets, broadcast journalists find themselves rubbing shoulders with important people and recording important events.

A career in journalism implies not only skill with words, pictures, and sounds, but the ability to make solid judgments and to ferret out facts. In addition to the obvious careers as reporters, anchors, and producers, students often find their journalism skills in demand in a variety of other areas.

Many find the challenge of recording the drama of real life both satisfying and enlightening. Recent changes in technologies and business models continue to change the way broadcast news is produced and distributed. These changes call for greater skill in writing to be able to visualize the world in an interesting way. Overall, one of journalism's great satisfactions has been the sense that one can make a positive difference in the world and bring about changes for the better.

Major Requirements

1. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Students must receive a B grade or better to be eligible to apply for admission to the program.
2. Complete the following:
   Comms 101, 211, 275.
3. Apply to the major.
4. Complete the following:
   Comms 239, 300, 308, 325, 385, 486.
5. After consulting with a faculty advisor, complete an internship in conjunction with 4 hours of the following:
   Comms 399R.
   Note: A C– grade or better in the following prerequisite courses must be achieved before the internship experience:
   Comms 308, 325.
6. Complete 9 hours from the following department electives:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 411, 412, 449, 480.

*Hours include courses that may fulfill university core requirements.

BA Communications: Communications Studies Emphasis (43 hours*)

The Discipline

This program is designed for the student who wants a broad, general undergraduate background in communications and does not necessarily want to specialize in advertising, broadcasting, print journalism, or public relations. This may be the student who plans to pursue advanced academic degrees rather than work in industry. The focus of the program is highly theoretical and conceptual.

Career Opportunities

This major does not lead to specific careers but is appropriate for those planning to pursue graduate or law degrees.

Major Requirements

1. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Students must receive a B grade or better to be eligible to apply for admission to the program.
2. Complete the following core courses:
   Comms 101, 211, 238.

   Note: Students must receive a B grade or better in Comms 238 to be eligible to apply for admission.
3. Apply to the major.
4. Complete the following:
   Comms 300.
5. Complete one course from the following:
   Comms 319
   Soc 300.
6. Complete the following:
   Comms 411, 483.
7. Complete 1 hour from the following practicum course:
   Comms 396R.
8. Complete 18 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 412, 449, 480.

   Note: Students may use one course from Comms 230, 235, 239 toward the 18-elective-hours requirement.

*Hours include courses that may fulfill university core requirements.

BA Communications: Print Journalism Emphasis (43 hours*)

The Discipline

Journalism is a mass media process that provides factual and relevant information for democratic decision making, community building, and public deliberation. Students will acquire skills in effective interviewing, analytical thinking, and lucid writing and storytelling. To develop a wide understanding of the world and the processes that make society work, students are encouraged to earn more than 60 percent of their credits in other departments. Students will become familiar with methods of writing that target mass audiences and help citizens work through community problems and issues. With contemporary journalists working for newspapers, magazines, and new media, students will be offered courses in media law and ethics, journalistic research methods, feature writing, in-depth reporting, publication design, new media, media processes, and public opinion. Print journalism students may choose either a traditional news-editorial track or qualify for a news design and new media track.

Career Opportunities

In the exciting field of journalism, traditionally there has been the allure of working in a profession that has its finger on the changing pulse of society. Whether serving as reporters on television, radio, cable, online, daily newspapers, the community press, or in the magazine field, journalists find themselves rubbing shoulders with important people and recording important events.

A career in journalism implies not only skill with words, but the ability to make sound judgments and to ferret out facts. In addition to the obvious careers as reporters and editors, students often find their journalism skills in demand in a variety of other areas.

Many find the challenge of recording the drama of real life both satisfying and enlightening. Because of television, journalism has changed in recent years, but even though there has been a decline in the number of daily newspapers, an explosion of special interest magazines and online publishing has opened up jobs for writers and editors. These changes call for greater skill in writing to be able to visualize the world in an interesting way. Overall, one of journalism's great satisfactions has been the sense that one can make a difference in the world and bring about changes for the better.

Major Requirements

1. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Students must receive a B grade or better to be eligible to apply for admission to the program.
2. Complete the following core courses:
   Comms 101, 211, 239.
3. Apply to the major.
4. Complete the following:
   Comms 300, 308, 321.
5. After consulting with a faculty advisor, complete one of the following tracks:
   a. News-Editorial Track:
      Comms 377, 420, 484.
   b. News Design and New Media Track:
      Comms 365, 428, 487.

   Note: Twelve students will be admitted to the news design and new media track each year based on an application.
6. After consulting with an advisor, complete an internship in conjunction with 4 hours of the following:
   Comms 399R.

   Note: A C– grade or better in the following prerequisite courses must be achieved before the internship experience:
   News editorial track: Comms 308, 321, 420.
   News design track: Comms 308, 365, 428.
7. Complete 9 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 411, 412, 449, 480.

*Hours include courses that may fulfill university core requirements.

BA Communications: Public Relations Emphasis

(49 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The Discipline

Public relations manages communication to build mutually beneficial relationships between the organization and its vital publics. The public relations program at BYU emphasizes research and measurement; strategic planning; professionally designed, written, and targeted tactics; and ethical practice. We prepare students with critical skills in thinking, writing, research, program planning and management, creative problem solving, and relationship building with publics typical to the public relations challenges of diverse organizations. Those publics include but are not limited to media, consumers, employees, government and other regulatory bodies, and communities. In keeping with the aims of a BYU education, our students and graduates should engage in lifelong learning and professional practice that exemplifies the values of grace, truth, and equity.

Career Opportunities

Virtually all segments of the public and private sectors throughout the world draw employees from public relations graduates. Graduates may work as technical experts or in management tracks. They may specialize in employee relations, community relations, public affairs, media relations, or several other tracks within the professional arena.

Major Requirements

1. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Students must receive a B grade or better to be eligible to apply for admission to the program.
2. Complete the following core courses:
   Comms 101, 211, 235.
3. Apply to the major.
4. Complete the following:
   Comms 300, 318.
5. Complete 9 hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 411, 412, 449, 480.
6. Complete the following:
   Comms 321, 336, 421, 485.
7. After consulting with an advisor, complete an internship in conjunction with 4 hours of the following:
   Comms 399R.

   Note: A C– grade or better in the following prerequisite courses must be achieved before the internship experience:
   Comms 318, 321, 336, 421.
8. Complete the following:
   Acc 200.
   Bus M 340.

*Hours include courses that may fulfill university core requirements.

Minor Communications (15 hours)

Minor Requirements

1. Complete the following:
   Comms 101, 230, 235, 239.
2. Complete 3 additional hours from the following:
   Comms 301, 351, 352, 360, 381, 382, 401, 402, 406, 411, 412, 449, 480.

Communications (Comms)

Undergraduate Courses

101. Mass Communication and Society. (3:3:0)
Historical and modern roles of mass media in society, emphasizing media effects on individuals and institutions.

211. News Writing. (3:2:2) F, W, Sp, Su Prerequisite: pre-communications status; a B grade or better in one of the following: Engl 150, Phil 150, or Honrs 150.
Principles and practices of identifying news and writing it for newspaper, radio, television, and Internet audiences. Lab required.

230. Introduction to Advertising. (3:3:0)
Principles of advertising; critical evaluation of its role and value in American society. Writing and creating ads for all media.

235. Introduction to Public Relations. (3:3:0)
Philosophy and practice of public relations in business, government, education, and other institutions. Study of publics, media, methods, press relations, and publicity.

238. Introduction to Communications Studies. (3:3:0) F, W, Alt. term Prerequisite: pre-communications status.
Survey of mass communication theory and research; historical and philosophical development of communication theory.

239. Principles of Journalism. (3:3:0) F, W, Alt. Sp, Su term
Theories and principles of journalism; critical evaluation of journalists' and news organizations' role and value in societies they serve.

275. Introduction to Broadcasting. (3:2:3) F, W, Sp
Principles and theories of broadcasting and the practical application of visual and aural storytelling; videography and field production; non-linear editing for radio, television, and new media.

300. Media Ethics, Law, and Responsibility. (3:3:0) F, W, Sp, Su Prerequisite: major status.
Introduction to First Amendment history and press freedom, law, and theory; media regulation and policy; relationship between law and ethics; key ethical issues in professional communications.

301. Mass Media History and Philosophy. (3:3:0) F Prerequisite: major or minor status.
History and philosophy of print, film, and broadcast communication media from their beginnings to the present; their roles as institutions in American society.

308. Research Methods for Journalism. (3:2:1) F, W; Alt. Sp, Su term Prerequisite: major status.
Qualitative and quantitative information-gathering strategies and techniques: interviewing, use of surveys and public records; online information gathering and database analysis.

317. Advertising Research Methods. (3:2:1) F, W, Alt. term Prerequisite: major status.
Quantitative research methods used in marketing and advertising; the research process; planning, designing, and conducting studies; analyzing results using appropriate methodologies.

318. Public Relations Research and Measurement. (3:2:1) F, W, Alt. term Prerequisite: major status.
Research methods and analysis critical to developing strategic public relations and measuring its effectiveness, emphasizing focus group and survey approaches with qualitative and quantitative statistical analysis.

319. Research in Communication. (3:2:1) F, W, Sp, Su Prerequisite: major status.
Procedures and design considerations for studying media messages, audiences, and effects. Emphasizes survey and focus group approaches to data collection and analysis.

321. News Reporting. (3:2:5) F, W, Sp, Su Prerequisite: Comms 300 or concurrent enrollment; major status.
Research and reporting skills. Database retrieval and interviewing. Beat reporting for newspapers, radio, and online media. Lab required.

325. Broadcast Reporting. (3:2:3) F, W, Sp Prerequisite: Comms 300 or concurrent enrollment; major status.
Principles and techniques of broadcast and online news reporting. Includes recording and videotaping reports of government, courts, and other institutions.

326. Performance for Broadcast. (3:2:1) F, W Prerequisite: instructor's consent.
Theory and practice of presenting news and information for radio, television, and new media.

327R. Special Topics in Broadcasting. (3:2:Arr. ea.) On dem. Prerequisite: instructor's consent.
Includes radio arts, specialty reporting, documentary production, and sports broadcasting.

329. Opinion Writing. (3:3:0)
Function of editorials, columns, commentaries, and reviews in the mass media. Open enrollment.

330. Creating Advertising Concepts—Portfolio 1. (3:3:0) Prerequisite: major status; software proficiency in InDesign, Adobe Photoshop, and Adobe Illustrator demonstrated by portfolio review or completion of Office of Information Technology course.
Basic consumer advertising: copywriting, design, and layout developed from creative strategies. Solving creative problems.

331. Creating Advanced Advertising Concepts—Portfolio 2. (3:3:0) Prerequisite: Comms 330; software proficiency in InDesign, Adobe Photoshop, and Adobe Illustrator demonstrated by portfolio review or completion of Office of Information Technology course.
Advanced consumer advertising: copywriting, design, and layout.

332. Marketing Media Planning and Strategy. (3:3:2) F, W, Alt. Sp, Su term Prerequisite: major status.
Media planning, theory, and practice in context of the marketing mix. Applying computer-based models as aids to media decisions. Writing marketing-based media plans. Case study approach to both print and broadcast media.

336. Strategic Planning and Problem Solving. (3:3:0) F, W, Sp Prerequisite: major status.
Cases selected from wide range of actual public relations problems confronting business, government, education, and other institutions. Strategic planning matrix.

345. Media Sales and Promotion. (3:2:2) F, W, Alt. Sp, Su term Prerequisite: major status.
Fundamentals of media sales process. Theory and application of persuasion relating to media sales.

351. Media Literacy. (3:3:0) F, Alt. Sp, Su term Prerequisite: major or minor status.
Understanding media content and production processes to empower media consumers. Media culture in our increasingly multicultural society relative to politics of representing race, ethnicity, gender, and class.

352. Media and Consumer Behavior. (3:3:0) W Prerequisite: major or minor status.
Conceptual and empirical relations between consumer information processing/choice behaviors and mass communications.

360. Media Management Principles and Theory. (3:3:0) W Prerequisite: major or minor status.
Managing communications organizations. Systems, motivation, leadership, communication, and regulations. Structure and economics of organizations. Factors of competition.

365. Photojournalism. (3:2:Arr.) F, W Prerequisite: Comms 321; admission to news design and new media track; or instructor's consent.
Shooting, processing, selecting, and preparing photographs for use in publications.

377. Feature Writing. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: Comms 321.
Analysis of nonfiction magazine markets and effective writing methods; criticism of students' articles.

381. Comparative Media Systems. (3:3:0) W Prerequisite: communications or international relations major or minor status.
Comparison of national media systems; normative theories of media organization and control.

382. Issues in International Communication. (3:3:0) F Prerequisite: communications or international relations major or minor status.
International information flow; information flow and foreign policy; international regulation; cultural imperialism; intercultural interaction.

385. Television News Producing. (3:2:3) F, W, Alt. Sp, Su term Prerequisite: Comms 325.
Theory and practice of producing and presenting information for television. Role of television news in society; nature of audiences; production techniques; TV news management. Lab includes producing daily cable newscast.

390R. Public Relations Student Agency. (2:1:1 ea.) F, W Prerequisite: Comms 235.
Student-run agency with faculty mentoring that applies principles, concepts, and skills learned in PR curriculum, emphasizing research, strategy, application, and evaluation.

395R. International Media Studies Abroad. (1–3:Arr.:0 ea.) Alt. Sp, Su term
Study Abroad course emphasizing media and culture of region selected.

396R. Communications Practicum. (1:0:Arr. ea.) Prerequisite: instructor's consent and approval of task or projects.
Practice and projects in communication.

397R. Honors Tutorial. (1–2:Arr.:0 ea.) Prerequisite: instructor's and department's consent.

398R. Projects in Communications. (1–4:Arr.:0 ea.) Prerequisite: junior standing and approval of project.
Projects in communication studies.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: major status; clearance by the Communications Department.
Professional field experience.

401. Regional Mass Media Issues. (3:3:0) W
Media from different countries, cultures, or subcultures. Media outlets. Issues, including those due to variability in language, diversity, culture, and geo-political orientation.

402. Media Criticism. (3:3:0) W Prerequisite: major or minor status.
Criticism of electronic media systems and their products and effects; critic's role and qualifications.

406. Advanced Media Law and Regulation. (3:3:0) W Prerequisite: major or minor status; Comms 300.
First Amendment philosophy underlying regulation of the mass media; libel, privacy, media relations with courts, broadcast regulation, advertising regulations, corporate communications; copyright, trademark.

411. Mass Communications Processes and Effects. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: major or minor status.
Mass communication as a social process, incorporating literature from journalism, social psychology, sociology, political science, and history. Factors in message construction, dissemination, and audience reception.

412. Communication Issues and Public Policy. (3:3:0) F, Alt. Sp, Su term Prerequisite: major or minor status.
Overview of issues, strategies, and role of communications professionals in various areas of American society, including media relations, government relations, community affairs, and consumer relations.

420. Advanced Print Reporting. (3:2:1) Prerequisite: Comms 308, 321.
Print news coverage of government, courts, education, and other institutions. Investigative reporting on major public issues and trends.

421. Public Relations Writing and Production. (3:3:1) Prerequisite: Comms 321, 336; computer proficiency in InDesign, Adobe Photoshop, Flash, and Dreamweaver demonstrated by portfolio review or completion of Office of Information Technology course.
Professional public relations writing and editing in a variety of formats as used in public relations applications.

428. Publication Graphics and Production. (3:2:3) F, W, Alt. Sp, Su term Prerequisite: Comms 308, 321; software proficiency in InDesign, Adobe Photoshop, and Illustrator demonstrated by portfolio review or completion of Office of Information Technology course.
Layout and graphics for publications. Contemporary practices in production.

432. Account Planning Management. (3:3:0) Prerequisite: major status; Comms 317.
Development and execution of a comprehensive strategic advertising research program, including data collecting, interpretation, field investigating, audience analysis, and strategy development.

433. Advanced Advertising Concepting—Portfolio 3. (3:3:0) Prerequisite: Comms 331; concurrent enrollment in Comms 489.
Capstone course in creating consumer advertising concepts, copywriting, design, and layout. Emphasizes finished portfolios.

449. Electronic Media Programs and Audiences. (3:3:Arr.) Prerequisite: major or minor status.
Basic program forms used in electronic media, effective program structure and appeals, and audience research and measurement.

480. Media Ethics and Moral Reasoning. (3:3:0) F Prerequisite: Comms 300 or instructor's consent.
Ethical issues in mass communication; integration of moral reasoning to critical mass communication issues.

483. Advanced Communications Studies. (3:3:0) F, W Prerequisite: Comms 319; 411 or concurrent enrollment.
Contemporary developments in communication theory, research, and practice.

484. News Editing and News Judgment. (3:2:6) F, W, Sp, Su Prerequisite: Comms 321, 420.
Management and editing of news flow, ranging from editorial conceptualization and news judgment to copy editing, headline writing, and basic page design.

485. Strategic Public Relations Campaigns. (3:3:0) Prerequisite: Comms 318, 336, 421; software proficiency in Flash, Dreamweaver, and Image Ready as demonstrated by portfolio review or completion of Office of Information Technology course.
Capstone course applying communication principles to internal and external publics; fact finding, planning, and evaluating social interrelationships; major campaigns for selected clients.

486. Advanced Broadcast Reporting. (3:2:Arr.) F, W, Alt. Sp, Su term Prerequisite: Comms 308, 385.
Capstone course for broadcast journalism students. In-depth broadcast news coverage of major public issues and trends. Formats may include daily news reports, series, and documentaries.

487. Multimedia Journalism. (3:2:4) F, W Prerequisite: Comms 428; software proficiency in Flash, Dreamweaver, and Image Ready demonstrated by portfolio review or completion of Office of Information Technology course; or instructor's consent.
Editing, design, and delivery of multimedia and interactive news content. Theories of new media use and practical application of those theories to create professional-level content.

489. Strategic Advertising Campaigns. (3:3:0) Prerequisite: Comms 300, 317, 332, 432; Comms 433 or concurrent enrollment.
Researching, planning, budgeting, creating, and writing national advertising campaigns; writing and producing a complete advertising plan, accompanied by a formal client presentation.

495R. Research and Readings in Communication Practice. (1–4:0:0 ea.) Prerequisite: senior standing and instructor's approval of projects.
Independent research projects and readings for communications majors.

499R. Honors Thesis. (1–3:Arr.:Arr. ea.) Prerequisite: approval of departmental honors coordinator.
Scholarly research paper related to student's program.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Communications Faculty

Professors

Adams, Edward E. (1999) BS, U. of Phoenix, 1986; MA, Brigham Young U., 1991; PhD, Ohio U., 1993.
Hughes, John R. (1991)
Thomsen, Steven R. (1996) BA, Brigham Young U., 1982; MA, Ball State U., 1984; PhD, U. of Georgia, 1994.
Wilson, Laurie (1989) BA, MA, Brigham Young U., 1980, 1982; PhD, American U., 1988.

Associate Professors

Baker, Sherry L. (1996) BA, MA, PhD, U. of Utah, 1984, 1988, 1994.
Callister, Mark A. (2005) BA, MA, Brigham Young U., 1988, 1991; PhD, U. of Arizona, 1997.
Gale, Larrie E. (1987) BA, MA, San Diego State Coll., 1967, 1970; PhD, U. of Utah, 1973.
McKinlay, Douglas R. (1999) BA, MA, Brigham Young U., 1968, 1969.
Mouritsen, Russell H. (1982) BA, Brigham Young U., 1969; MEd, PhD, U. of Utah, 1971, 1980.
Palmer, Allen W. (1996) BA, MA, Brigham Young U., 1970, 1979; PhD, U. of Utah, 1996.
Plowman, Kenneth D. (2002) BA, Brigham Young U., 1977; MA, George Washington U., 1981; PhD, U. of Maryland, 1995.
Robinson, Thomas E., II (2003) BS, Northern Arizona U., 1988; MA, U. of Nevada, Las Vegas, 1992; PhD, U. of Southern Mississippi, 1996.
Stoker, Kevin L. (1999) BA Brigham Young U., 1981; MA, PhD, U. of Alabama, 1993, 1998.
Wakefield, Robert I. (2006) BA, MA, Brigham Young U., 1980, 1990; PhD, U. of Maryland, 1997.
Walton, Susan B. (2006) BA, MA, Brigham Young U., 1979, 1986.

Assistant Professors

Campbell, Joel J. (2002) BA, Brigham Young U., 1997; MA, Ohio State U., 2000.
Carter, Edward L. (2004) BA, JD, Brigham Young U., 1996, 2003; MSJ, Northwestern U., 1999.
Cressman, Dale L. (2003) BA, MA, Brigham Young U., 1985, 1989; PhD, U. of Utah, 2003.
Cutri, Christopher (2003) BA, Brigham Young U., 1995; MFA, Art Center of Design, 1997.
Randle, Quint B. (2000) BA, Brigham Young U., 1984; MA, Pepperdine U., 1995; PhD, Michigan State U., 2001.
Rawlins, Bradley L. (2000) BS, Washington State U., 1987; MA, PhD, U. of Alabama, 1992, 1995.
Walz, J. Robert (2002) BA, Brigham Young U., 1982.

Instructor

Worsham, Anne G. (2006) BA, MA, Brigham Young U., 1985, 2003.

Adjunct Faculty

Bruce L. Olsen

Emeriti

Barney, Ralph D. (1971) BS, Brigham Young U., 1957; MA, U. of Iowa, 1960; PhD, U. of Missouri, 1971.
Barrus, George S. (1967) BS, U. of Utah, 1950; MA, Brigham Young U., 1964; PhD, U. of Iowa, 1969.
Bartlett, Leonard L. (1987) BA, MA, Brigham Young U., 1957, 1989.
Beckham, Raymond E. (1949) BS, MA, Brigham Young U., 1949, 1969; PhD, Southern Illinois U., 1972.
Burnett, M. Dallas (1958) BS, Brigham Young U., 1954; MSJ, PhD, Northwestern U., 1958, 1967.
Butterworth, Edwin J. (1949) BA, U. of Utah, 1950; MA, Brigham Young U., 1954.
Egan, Kathryn S. (1987) BA, U. of Utah, 1964; MA, Northwestern U., 1965; PhD, U. of Southern California, 1972.
Hainsworth, Brad E. (1984) BA, MA, PhD, U. of Utah, 1963, 1966, 1968.
Kagel, Richard I. (1973) BA, Brigham Young U., 1968; MA, Fairfield U., 1973; PhD, Columbia Pacific U., 1980.
Nelson, Jack A. (1977) BA, Brigham Young U., 1954; MA, U. of Utah, 1964; PhD, U. of Missouri, 1971.
Porter, William C. (1972) BA, Brigham Young U., 1961; MA, U. of California, Los Angeles, 1963; EdD, Oklahoma State U., 1985.
Pratte, Paul Alfred (1984) BS, MA, Brigham Young U., 1962, 1967; PhD, U. of Hawaii, 1976.
Rich, Owen S. (1950) BS, Brigham Young U., 1950; MA, U. of Southern California, 1953; EdD, Pennsylvania State U., 1963.
Tarbox, Norman C. (1960) BS, U. of Utah, 1955; MS, Syracuse U., 1956; PhD, U. of Utah, 1979.
Valenti, JoAnn M. (1992) BSJ, MA, U. of Florida, 1967, 1969; PhD, U. of Michigan, 1983.
Whiting, Gordon C. (1974) BA, U. of Minnesota, 1959; MA, U. of Utah, 1961; PhD, Michigan State U., 1967.
Wolsey, Heber G. (1963) BS, Brigham Young U., 1942; MA, Northwestern U., 1949; PhD, Michigan State U., 1967.

Comparative Literature

See Humanities, Classics, and Comparative Literature section of this catalog.

Computer Science

Tony R. Martinez, Chair
3361 TMCB, (801) 422-3027

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree programs in the Department of Computer Science are open enrollment.

The Discipline

Computer science touches virtually every area of human endeavor. Software is responsible for everything from the control of kitchen appliances to sophisticated climate models used in predicting future environmental change. Students in computer science learn to approach complex problems in business, science, and entertainment using their strong background in mathematics, algorithms, and data structures.

The degree programs in the Computer Science Department prepare students to be confident software developers and technical problem solvers. The curriculum also trains students for research into new avenues where computers will have a significant impact.

The BS curriculum is accredited by the Computing Accreditation Commission of ABET.

Career Opportunities

Graduates pursue exciting opportunities in graphics, artificial intelligence, software engineering, database design, scientific programming, systems administration, and research at universities and national laboratories.

The bioinformatics emphasis is designed for students who are interested in building software to assist in analyzing biological systems. Students will graduate with a significant background in biology coupled with the software development and analysis skills necessary to implement large bioinformatics applications.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Computer Science
	Emphasis (optional)
	Bioinformatics
Minors	Computer Science
	Computer Science Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Computer Science
PhD	Computer Science

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Personnel in the College of Physical and Mathematical Sciences Advisement Center will advise regarding core courses and suggested general education. Questions regarding curriculum and career decisions should be directed to the undergraduate advisor in the Computer Science Department.

Note: All hours of credit applied toward a major in computer science must be of C– or better and must be taken within eight years of declaring the computer science fundamentals major. Any exceptions must be approved by the department. Students may choose to graduate under later requirements by updating their date of entry into the major at the college advisement center.

BS Computer Science (79–81 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   C S 124, 142, 235, 236, 240, 252, 312, 330, 340, 345, 360, 404.
3. Complete the following supporting courses:
   Engl 316.
   Math 112, 113, 343.
   Phscs 121, 220.
   Stat 321.
4. Complete at least 6 hours from the following:
   Biol 100, 120, 220.
   Chem 105, 106.
   Geol 111, 330.
   InBio 341.
   Phscs 123, 222.
5. Complete four courses from the following:
   400-level computer science courses.
   EC En 324, 425.
6. Complete one additional course from the following:
   400- or 500-level computer science courses.
   EC En 324, 425.

   Note: C S 598R requires senior or graduate status in computer science and departmental approval before registering.

*Hours include courses that may fulfill university core requirements.

BS Computer Science: Bioinformatics Emphasis

(83–84 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   C S 124, 142, 235, 236, 240, 252, 312, 340, 345, 404.
3. Complete one course from the following:
   Chem 152, 351.
4. Complete the following supporting courses:
   Biol 120, 240, 340.
   Chem 105.
   Engl 316.
   InBio 265, 365, 465.
   Math 112, 113, 214.
   Phscs 121.
   Stat 441, 442.
5. Complete three elective courses from 400-level computer science courses. C S 360 will also count.

*Hours include courses that may fulfill university core requirements.

Minor Computer Science (15 hours*)

Minor Requirements

1. No D credit is allowed in minor courses.
2. Complete the following:
   C S 142, 235, 236.
3. Complete two additional computer science courses from the following:
   C S 100, 124, 240, 252.

Recommendations

1. Although not required, C S 100 is strongly recommended.
2. Students wishing to emphasize programming skills should include C S 240.
3. Students wishing to emphasize computer architecture should include C S 124.
4. Students wishing to emphasize mathematical rigor, should include C S 252.
5. Students wishing to take particular upper-division courses may be allowed to substitute 300- or 400-level computer science courses (except C S 404 and C S 405) for one or both of the two additional computer science courses. This option requires proper preparation and prior approval of course instructors and the undergraduate coordinator.

Minor Computer Science Teaching (17–18 hours)

Minor Requirements

1. Complete the following:
   C S 124, 142, 235, 236, 240.
2. Complete one additional computer science course with the approval of the Computer Science Department undergraduate coordinator.

Computer Science (C S)

Undergraduate Courses

100. Fundamentals of Computing and Information. (3:3:0) For nonmajors. F, W, Sp
Computing, information structures, programming principles, Internet, World Wide Web, text, spreadsheets, data representations for images, sound and video.

124. (C S-EC En) Introduction to Computer Systems. (3:3:2) F, W, Su Prerequisite: C S 142 or concurrent enrollment.
How a computer works, from hardware to high-level programming. Logic circuits, computer instructions, assembly language, binary arithmetic, C programming, program translation, data structures, and algorithm analysis.

142. Introduction to Computer Programming. (3:3:0) F, W, Sp, Su Prerequisite: knowledge of algebra.
Introduction to object-oriented program design and development. Principles of algorithm formulation and implementation.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su
Internships or cooperative education experiences with organizations outside BYU.

235. Data Structures and Algorithms. (3:3:0) F, W, Sp, Su Prerequisite: C S 142.
Fundamental data structures and algorithms of computer science; basic algorithm analysis; recursion; sorting and searching; lists, stacks, queues, trees, hashing; object-oriented data abstraction.

236. Discrete Structures. (3:3:0) F, W, Sp, Su Prerequisite: C S 235.
Introduction to grammars and parsing; predicate and propositional logic; proof techniques; sets, functions, relations, relational data model; graphs and graph algorithms.

240. Advanced Programming Concepts. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 236.
Advanced software development with an object-oriented focus. Development and testing of several 1500 to 2000 line modules from formal specifications. UNIX and C++ environment.

252. Introduction to Computational Theory. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 236.
Finite state automata, regular languages, lexical analysis; push-down automata, context-free languages, parsing; Turing machines and unrestricted grammars; computability, complexity, NP-completeness.

301R. Topics in Computer Science. (3:3:0 ea.) F, W Prerequisite: instructor's consent.
Undergraduate-level topics as announced.

312. Algorithm Analysis. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 240, 252.
Analysis of algorithms including searching, sorting, graphs, and trees.

330. Concepts of Programming Languages. (3:3:0) F, W, Sp Prerequisite: C S 236, 240.
Principles and concepts characterizing high-level computer programming languages, process and data abstraction, encapsulation, inheritance, functional programming, logic programming, scanners, and parsers.

340. Software Design and Testing. (3:3:0) F, W, Sp, Su Prerequisite: C S 236, 240.
Principles of software design, design patterns, design representation, refactoring. Principles of software quality assurance and testing. Development of testing tools.

345. Operating Systems Design. (3:3:0) F, W, Su Prerequisite: C S 240.
Principles and concepts of operating systems design and the implementation of an operating system.

360. Internet Programming. (3:3:0) F, W Prerequisite: C S 236, 345.
Internet application programming, including sockets, threads, CGI, database, e-commerce, Web services.

401R. Topics in Computer Science. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Undergraduate level subjects as announced before each semester.

404. Ethics and Computers in Society. (2:2:0) F, W Prerequisite: C S 240; junior–senior status.
Societal impact of computer technology, the computer scientist's place in society, ethical issues. Reading, discussion, and writing seminar.

405. Creating and Managing a Software Business. (3:3:0) F, W Prerequisite: C S 240, Engl 316.
Entrepreneurship, idea/opportunity generation, strategic planning, legal organization, product development, marketing/sales, customer support, fund raising, and effective management.

412. Modeling and Optimization. (3:3:0) W Prerequisite: C S 312, Math 343, Stat 321.
Modeling, learning, and decision/control identified and placed in perspective. Linear optimization, game theory, operations research, network flows, and Markov processes.

428. Software Engineering. (3:3:0) F, W Prerequisite: C S 340.
Analysis, design, implementation, and testing of significant software systems.

431. Algorithmic Languages and Compilers. (3:3:0) Alt. sem., Alt. Sp, Su term Prerequisite: C S 330, 340.
Formal description of algorithmic languages and techniques used in their compilation: semantics, ambiguities, procedures, replication, iteration, recursion.

450. Introduction to Digital Signal and Image Processing. (3:3:0) F, W Prerequisite: C S 312, Math 343, Stat 321.

One- and two-dimensional signal-processing fundamentals, including sampling, noise, transforms, filtering, enhancement, and compression. Hands-on experimentation with speech, music, still images, and full-motion video.

452. Database Modeling Concepts. (3:3:0) F, W Prerequisite: C S 340, 360.

Database models: relational, deductive, object-oriented. Integrity constraints, query languages, database design.

455. Computer Graphics. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 340; Math 343.

Interactive computer graphics systems programming and architecture.

456. Introduction to User Interface Software. (3:3:0) W Prerequisite: C S 340.

Introduction to software architectures and techniques for graphical user interfaces. Input devices, windowing systems, event-driven programming, interactive geometry.

460. Computer Communications and Networking. (3:3:0) F, W Prerequisite: C S 340, 360.

Introduction to data communications and computer networking. Communications fundamentals, computer networks, software, architecture, telecommunications, regulation, standards.

462. Large-Scale Distributed System Design. (3:3:0) F Prerequisite: C S 340, 360.

Designing and implementing client-server enterprise applications. Web servers, application servers, database connectivity, remote procedure calls, transactions, messaging, directory, naming services, threads, security, data formats.

465. Computer Security. (3:3:0) F Prerequisite: C S 360. Recommended: C S 404.

Introduction to computer security fundamentals: confidentiality, integrity, authentication, and access control. Secret key and public key cryptography, network security protocols, viruses, and fire walls.

470. Introduction to Artificial Intelligence. (3:3:0) F Prerequisite: C S 312, Math 343, Stat 321.

Introduction to core areas of artificial intelligence; intelligent agents, problem solving and search, knowledge-based systems and inference, planning, uncertainty, learning, and perception.

478. Introduction to Neural Networks and Machine Learning. (3:3:0) F, W Prerequisite: C S 312, Math 343, Stat 321.

Neural network and machine learning models include Perceptrons, back-propagation, decision trees, genetic algorithms, and other mechanisms allowing computers to learn without being programmed.

486. Verification and Validation. (3:3:0) F Prerequisite: C S 312, Math 343, Stat 321.

Implementing formal verification algorithms and using them in protocol and circuit design; proving both incorrectness and correctness.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Advanced Topics in Computer Science. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.

Advanced undergraduate- and graduate-level subjects as announced before each semester.

557. Computer-Aided Geometric Design. (3:3:0) W Prerequisite: C S 240, Math 343; or equivalents.

Free-form curves and surfaces; mathematical theory and algorithms. Bezier and B-spline curves and surfaces, subdivision surfaces, T-splines, free-form deformation, and intersection algorithms. Several programming projects.

579. Natural Language Processing. (3:3:0) W Prerequisite: instructor's consent.

Machine translation, human-computer dialog, question answering, parsing, and generating from an artificial intelligence and machine-learning perspective.

598R. Special Projects. (1–3:0:0 ea.) Prerequisite: instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Computer Science Faculty

Professors

Barrett, William A. (1987) BA, PhD, U. of Utah, 1974, 1978.
Burton, Robert Preece (1974) PhD, U. of Utah, 1973.
Egbert, Parris (1992) BS, Utah State U., 1986; MS, PhD, U. of Illinois, 1990, 1992.
Embley, David W. (1982) BA, MS, U. of Utah, 1970, 1972; PhD, U. of Illinois, 1976.
Flanagan, Kelly J. (1993) BS, MS, PhD, Brigham Young U., 1988, 1989, 1993.
Martinez, Tony R. (1987) BS, Brigham Young U., 1982, MS, PhD, U. of California, Los Angeles, 1983, 1986.
Olsen, Dan R. (1985) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of Pennsylvania, 1981.
Sederberg, Thomas W. (1978) BS, MS, Brigham Young U., 1975, 1977; PhD, Purdue U., 1983.
Woodfield, Scott N. (1985) BS, MS, Brigham Young U., 1975, 1978; PhD, Purdue U., 1980.

Associate Professors

Barker, Joseph Cory (2001) BS, PhD, Brigham Young U., 1982, 1994.
Clement, Mark J. (1994) BS, MS, Brigham Young U., 1985, 1989; PhD, Oregon State U., 1994.
Giraud-Carrier, Christophe G. (2004) BS, MS, PhD, Brigham Young U., 1991, 1993, 1994.
Goodrich, Michael A. (1999) BS, MS, PhD, Brigham Young U., 1992, 1995, 1996.
Knutson, Charles D. (2000) BS, MS, Brigham Young U., 1988, 1994; PhD, Oregon State U., 1998.
Morse, Bryan S. (1994) BS, MS, Brigham Young U., 1986, 1990; PhD, U. of North Carolina, 1994.
Ng, Yiu Kai (Dennis) (1991) BS, Brigham Young U., 1982; MS, Brigham Young U., 1984; PhD, Kansas State U., 1991.
Seamons, Kent (2000) BS, Brigham Young U., 1986; PhD, U. of Illinois, 1996.
Snell, Quinn (1997) BS, MS, Utah State U., 1992, 1993; PhD, Iowa State U., 1997.
Windley, Phillip J. (2004) BS, U. of Idaho, 1982; MS, PhD, U. of California, Davis, 1988, 1990.
Zappala, Daniel M. A. (2004) BS, Stanford U., 1990; PhD, U. of Southern California, 1997.

Assistant Professors

Jones, Michael D. (2001) BS, MS, Brigham Young U., 1995, 1997; PhD, U. of Utah, 2001.
Mercer, Eric G. (2002) BS, MS, PhD, U. of Utah, 1996, 1999, 2002.
Ringger, Eric (2005) BS, Brigham Young U., 1992; MS, PhD, U. of Rochester, 1994, 2000.
Rodham, Kenneth J. (2001) BS, MS, PhD, Brigham Young U., 1990, 1992, 1995.
Roper, Paul R. (2004) BS, MS, Brigham Young U., 1976, 1979.
Seppi, Kevin (2002) BS, Brigham Young U., 1983; MS, U. of Santa Clara, 1986; PhD, U. of Texas, 1990.
Ventura, Dan A. (2001) BS, MS, PhD, Brigham Young U., 1992, 1995, 1998.
Warnick, Sean C. (2003) BSE, Arizona State U., 1993; MS, PhD, Massachusetts Inst. of Technology, 1996, 2003.

Emeriti

Ashton, Alan C. (1972) BA, PhD, U. of Utah, 1966, 1970.
Beus, H. Lynn (1971) BA, Brigham Young U., 1961; MS, Case Inst. of Technology, 1964; PhD, Case Western Reserve U., 1967.
Burton, Robert C. (1964) BS, Brigham Young U., 1956; PhD, U. of North Carolina, 1963.
Christensen, Larry C. (1983) BA, Brigham Young U., 1963; MA, Central Michigan U., 1968; EdD, Brigham Young U., 1981.
Cornell, Aurel (1980) MS, PhD, Polytechnic Inst. of Timisoara, Rumania, 1960, 1971.
Dean, C. Edwin (1949) BS, MS, Brigham Young U., 1948, 1952; MS, U. of Michigan, 1955.
Hays, Bill (1970) BS, East Texas State U., 1963; MS, U. of Iowa, 1967; PhD, Northwestern U., 1970.
Ivie, Evan Leon (1979) BS, BES, Brigham Young U., 1956, 1956; MS, Stanford U., 1957; PhD, Massachusetts Inst. of Technology, 1966.
McClurg, Lynn E. (1972) BGE, U. of Nebraska, 1966; MS, U. of Southern California, 1972; EdD, Brigham Young U., 1978.
Norman, Theodore A. (1970) BS, U. of Utah, 1962; MS, PhD, Washington State U., 1968, 1970.
Robison, Parley P. (1967) BS, U. of Utah, 1958.
Stokes, Gordon E. (1969) BS, Brigham Young U., 1961; MS, U. of Idaho, 1969; EdD, Brigham Young U., 1981.
Wright, Norman Edward (1963) BS, Brigham Young U., 1951.

Computers and the Humanities

See Linguistics and English Language section of this catalog.

Construction Management

See School of Technology.

Counseling Psychology and Special Education

Mary Anne Prater, Chair
340 MCKB, (801) 422-3857

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

Students must apply to the Counseling Psychology and Special Education Department for admission to the special education undergraduate degree and post-baccalaureate licensing programs. Applications may be obtained from the department office in 340 MCKB or on the department Web site at http://education.byu.edu/cpse. See additional information below.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Special Education
Emphases
Mild/Moderate Disabilities
Severe Disabilities

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Special Education
EdS School Psychology
PhD Counseling Psychology

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Post-Baccalaureate Special Education Licensing

Individuals who have already completed a bachelor's degree who apply and are admitted to the special education licensing program may be licensed in special education upon completion of the required licensing course work. No degree designation is given for this option.

Admission to BS Programs

Among other factors, the application review process involves consideration of the following:

1. Significant experience working with individuals who have disabilities (see Special Education Exploratory Experience Log and Summary Report in application packet on Web site).
2. A university cumulative GPA of 2.85 or higher.
3. A fingerprinting and FBI background check. See Education Advisement and Certification Office (120 MCKB) for instructions.
4. Successful completion of technology skills assessment.

Additional Licensing Requirements

It is the student's responsibility to be sure that the Praxis Test has been taken and that BYU has received the test scores, that the student's fingerprint background clearance is current, and that state licensing fees have been paid prior to graduation. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements contact the Education Advisement and Certification Center, 120 MCKB, (801) 422-3426. Graduation and Utah licensure cannot be processed until these requirements have been completed.

BS Special Education: Mild/Moderate Disabilities Emphasis (55–56 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Education Advisement and Certification Office for information regarding requirements for admission to this program.

Major Requirements

1. Complete the following with at least a B– grade prior to beginning the program:
   CPSE 400.
2. Complete the following core courses:
   CPSE 410, 420, 430, 440, 470, 480.
   IP&T 287, 515R.
3. Complete the following emphasis courses:
   CPSE 442, 446R, 452, 462, 466R, 490.
4. Complete 12 hours of the following student teaching or internship experience:
   CPSE 486R, 496R.
5. Complete 5–6 hours from the following:
   ASL 101, 102, 301.
   ComD 330.
   El Ed 340.
   ELang 223.
   ExSc 379.
   Ling 230, 440, 460, 472, 476, 477.
   MFHD 210, 324.
   Psych 220, 320, 321.
   Rel C 472.

BS Special Education: Severe Disabilities Emphasis (55–56 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Education Advisement and Certification Office for information regarding requirements for admission to this program.

Major Requirements

1. Complete the following with at least a B– grade prior to beginning the program:
   CPSE 400.
2. Complete the following core courses:
   CPSE 410, 420, 430, 440, 470, 480.
   IP&T 287, 515R.
3. Complete the following emphasis courses:
   CPSE 443, 447R, 453, 463, 467R, 490.
4. Complete 12 hours of the following student teaching or internship experience:
   CPSE 487R, 496R.
5. Complete 5–6 hours from the following:
   ASL 101, 102, 301.
   ComD 330.
   El Ed 340.
   ELang 223.
   ExSc 379.
   Ling 230, 440, 460, 472, 476, 477.
   MFHD 210, 324.
   Psych 220, 320, 321.
   Rel C 472.

Counseling Psychology and Special Education (CPSE)

Undergraduate Courses

400. Exceptional Students: Principles of Collaboration. (2:1:Arr.) F, W Sp

Basic principles and legislative issues in effectively communicating and collaborating with professionals, parents, and other service providers to meet needs of individuals with disabilities in inclusive educational environments. Lab.

401R. Practicum in Educational Partnerships. (1:0:1 ea.) F, W, Sp, Su Prerequisite: admission to elementary, secondary, or special education program.

Collaborating with parents, professionals, and others to meet needs of individuals with disabilities in inclusive or special education environments.

402. Educating Students with Disabilities in Secondary Classrooms. (2:2:0) F, W, Sp, Su Prerequisite: Sc Ed 350 or concurrent enrollment; Sc Ed 276R or comparable major course.

Issues, policies, and methods in teaching secondary students with disabilities in general education classrooms. Lab.

410. Applied Behavior Analysis in Education. (3:3:2) F Prerequisite: admission to special education program.

Strategies for educating individuals with at-risk disabilities. Prevention, early intervention, and treatment strategies.

420. Assessment and Evaluation of Students with Exceptional Needs. (3:2:1) F Prerequisite: admission to special education program.

Determining present levels of performance, classifying students for special education services, and writing goals and objectives for IEP development.

430. Teaching Reading/Language Arts to Students with Disabilities. (3:3:0) W Prerequisite: admission to special education program; CPSE 400 or equivalent.

Research-based methods for teaching language arts to students with disabilities.

440. Curriculum and Instruction for Secondary Students with Disabilities. (1–3:Arr.:Arr.) W Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 446R or 447R.

Selecting and adapting curriculum accommodations, transition planning, and postsecondary preparation.

442. Social and Behavioral Strategies for Students with Mild/Moderate Disabilities. (3:2:1) W Prerequisite: admission to special education program; CPSE 400, 410.

Principles, procedures, and strategies for classroom behavior management, social competence, and individual and schoolwide intervention plans.

443. Social and Behavioral Strategies for Students with Severe Disabilities. (3:3:0) W Prerequisite: admission to special education program; CPSE 400, 410.

Principles, procedures, and strategies for creating positive educational environments, including functional assessment, behavior intervention plans, and developing social competence.

446R. Practicum in Secondary Education: Mild/Moderate Disabilities. (1:0:Arr. ea.) W Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 440 (secondary).
Teaching students with mild/moderate disabilities in secondary settings.

447R. Practicum in Secondary Education: Severe Disabilities. (1:0:Arr. ea.) W Prerequisite: admission to special education program; CPSE 400 or equivalent; concurrent enrollment in CPSE 440 (secondary).
Teaching students with severe disabilities in secondary settings.

452. Effective Teaching Strategies for Students with Mild/Moderate Disabilities. (3:3:0) F Prerequisite: admission to special education program; CPSE 400, 410.
IEP-based lesson planning and teacher-directed, student-mediated instructional strategies.

453. Curriculum and Instruction: Severe Disabilities. (3:3:0) Sp Prerequisite: admission to special education program or instructor's consent.
Strategies for designing and implementing educational programs, curricula, and teaching methods for students with severe disabilities.

462. Teaching Math to Students with Disabilities. (3:3:0) Sp Prerequisite: CPSE 400 or equivalent; admission to special education program.
Research-based methods.

463. Assistive Technology for Students with Disabilities. (3:3:0) F Prerequisite: admission to special education program or instructor's consent.
Using assistive technology to improve communication skills and education of students with disabilities.

466R. Practicum: Teaching Students with Mild/Moderate Disabilities. (1–4:0:Arr. ea.) Sp, Su Prerequisite: admission to special education licensure program; CPSE 400 or equivalent.
Effective teaching cycle for students with mild/moderate disabilities.

467R. Practicum: Teaching Students with Severe Disabilities. (1–4:0:Arr. ea.) Sp, Su Prerequisite: admission to special education licensure program; CPSE 400 or equivalent.
Effective teaching cycle for students with severe disabilities.

470. Legal Issues Influencing Collaboration in Special Education. (3:3:0) Su Prerequisite: CPSE 400 or equivalent; admission to special education program.
Laws and issues influencing special education and educators' roles in collaborating with families and professionals.

480. Educational and Multicultural Issues in Special Education. (3:Arr.:Arr.) F
Special education issues: multicultural, historical, and legal foundations.

486R. Student Teaching: Students with Mild/Moderate Disabilities. (1–12:Arr.:Arr. ea.) F, W, Sp Prerequisite: successful completion of all core courses and practica in special education.
Culminating experience teaching students with mild/moderate disabilities in school settings. Fee.

487R. Student Teaching: Students with Severe Disabilities. (1–12:Arr.:Arr. ea.) F, W, Sp Prerequisite: successful completion of all core courses and practica in special education.
Culminating experience teaching students with severe disabilities in school settings. Fee.

490. Capstone Seminar: Students with Disabilities. (1:1:0) F, W Prerequisite: successful completion of all special education courses and concurrent enrollment with student teaching/internship.
Synthesizing knowledge and skills in special education; developing professional ethics and commitment to professional development.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su

496R. Academic Internship: Special Education. (1–12:Arr.:Arr. ea.) F, W, Sp Prerequisite: departmental approval of application; placement one semester in advance of registration.
Culminating experience in the licensure program teaching students with disabilities in a school setting full-time for one academic year. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

503. Education of Individuals with Disabilities. (3:3:0) Prerequisite: concurrent enrollment in student teaching or internship.
Developing, implementing, and evaluating programs for individuals with disabilities.

514R, 515R. Special Topics in Educational Psychology. (1–3:3:1 ea.) F, W, Sp, Su Independent Study also. Prerequisite: instructor's consent.

Note: No graduate credit is given for CPSE 514. CPSE 515R credit may count toward a graduate degree if prior approval is obtained.
—Assessing Learning and Behavior
—Changing Role of the Counselor
—Classroom Behavior Management
—Current Topics in Counseling
—Current Topics in Educational Psychology
—Current Topics in Special Education
—Curriculum for Exceptional Children
—Effective Teaching
—Emotionally Handicapped
—Evaluating Student Learning
—Exceptional Children in the Regular Classroom
—Gifted and Talented
—Intellectually Handicapped
—Learning Disabled
—Microcomputers in Schools
—Motivation
—Program Evaluation
—Self-Concept
—Teaching Exceptional Children
—Understanding Exceptional Children

518. Introduction to Gifted/Talented Education. (2:2:1) F, W, Su Independent Study also.
Various approaches to educating the gifted and talented.

525. Education of Students with Learning Disabilities. (3:3:3) Prerequisite: instructor's consent.

533R. Practicum in Assessment: Mild/Moderate Disabilities. (1–3:0:Arr. ea.)
Assessing, diagnosing, and evaluating individuals with disabilities.

545. Gifted: Creativity and Thinking Strategies. (2:2:0) W, Su
Nature of creativity and approaches to nurturing it.

560. Leadership in Student Services. (3:3:0) On dem.
Applying leadership and administrative theory and methods to student services in school and related educational settings. Helping skills for counselors, school psychologists, principals, teachers, and others interested in the learning and emotional climate of the school.

580R. Directed Observation in the Schools. (1–3:0:8 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

582R. Practicum: Individuals with Emotional and Behavioral Disabilities. (1–8:0:8 ea.) Prerequisite: instructor's consent, CPSE 511, and prior application. Fee.

584R. Practicum: Individuals with Learning Disabilities. (2–8:0:8 ea.) Prerequisite: CPSE 526; departmental approval of application and placement one semester in advance of registration. Fee.

586R. Student Teaching: Students with Mild/Moderate Disabilities. (4–12:0:Arr. ea.) Prerequisite: Successful completion of all core courses and practica in the special education program.

Culminating experience in the program: teaching students with mild/moderate disabilities in school settings. Fee.

587R. Student Teaching: Students with Severe Disabilities. (4–12:0:Arr. ea.) Prerequisite: successful completion of all core courses and practica in the special education program.

Culminating experience in the program: teaching students with severe disabilities in school settings. Fee.

599R. Academic Internship: Special Education. (12:Arr.:Arr. ea.) Prerequisite: successful completion of all core courses and practica in the special education program.

Culminating experience in the licensure program teaching students with disabilities in a school setting full-time for one academic school year. Fee.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Counseling Psychology and Special Education Faculty

Professors

Heaps, Richard A. (1970) BS, Brigham Young U., 1966; MA, PhD, U. of Utah, 1968, 1970.

Kramer, Gary L. (1982) BS, MA, Brigham Young U., 1970, 1971; PhD, Oregon State U., 1977.

Prater, Mary Anne (2001) BM, MS, U. of Utah, 1975, 1982; PhD, Utah State U., 1987.

Richards, P. Scott (1990) BS, MS, Brigham Young U., 1981, 1983; PhD, U. of Minnesota, 1988.

Ward, Robert G. (1981) BS, MS, Utah State U., 1959, 1961; PhD, Michigan State U., 1965.

Young, K. Richard (1998) BS, MS, PhD, U. of Utah, 1969, 1971, 1973.

Associate Professors

Ashbaker, Betty Y. (1998) BS, MS, Utah State U., 1972, 1974; PhD, Brigham Young U., 1981.

Dyches, Tina Taylor (1995) BS, Brigham Young U., 1986; MS, Utah State U., 1990; EdD, Illinois State U., 1995.

Fischer, Lane (1994) BS, MA, Brigham Young U., 1979, 1982; PhD, U. of Minnesota, 1991.

Gibb, Gordon S. (1996) BS, Eastern Montana Coll., 1976; MEd, Brigham Young U., 1988 ; PhD, U. of Utah, 1994.

Heath, Melissa A. (1999) BS, Brigham Young U., 1975; PhD, Texas A&M U., 1996.

Jackson, Aaron P. (1998) BS, MA, Brigham Young U., 1985, 1989; PhD, U. of Missouri, Columbia, 1993.

Smith, Timothy B. (1999) BS, Brigham Young U., 1991; MA, MS, PhD, Utah State U., 1993, 1996, 1997.

Wilder, Lynn K. (1999) BS, MA, EdD, Ball State U., 1975, 1978, 1999.

Assistant Professors

Crook-Lyon, Rachel E. (2002) BS, Brigham Young U., 1996; MA, PhD, U. of Maryland, College Park, 2000, 2002.

Marchant, Michelle (2001) BS, MS, PhD, Utah State U., 1991, 1996, 2000.

Young, Ellie L. (2001) BS, MEd, SPC, Brigham Young U., 1986, 1987, 1988; PhD, U. of South Florida, 2001.

Associate Clinical Professor

Scharman, Janet S. (1992) BA, MS, PhD, U. of Utah, 1970, 1990, 1992.

Assistant Clinical Professors

Abraham, Heidi (2004) BS, MS, Brigham Young U., 1995, 2004.

Sampson, Katie E. (2003) BS, MS, Brigham Young U., 2000, 2004.

Smith, Barbara A. (2003) BS, MEd, Brigham Young U., 1978, 1982.

Adjunct Instructors

Munk, JoAnn (2002) BS, MS, Brigham Young U., 1999, 1999.

Peery, Karolyn (2004) BS, MS, Brigham Young U., 1981, 2005.

Reier, Shelly (2004) BS, MS, Utah State U., 1992, 1998.

Solomon, Carol (2005) BA, Brigham Young U., 1968; MS, Western Oregon State U., 1992.

Adjunct Assistant Professor

Anderson, Darlene H. (2002) BA, Brigham Young U., 1965; MS, U. of Utah, 1992; PhD, Utah State U., 2002.

Emeriti

Bingham, Ronald D. (1971) BS, Utah State U., 1961; MEd, PhD, Pennsylvania state U., 1965, 1970.

Crandell, John M. (1970) BA, MA, Arizona State U., 1951, 1957; PhD, U. of Texas, Austin, 1966.

Gale, Darwin F. (1969) BS, MS, Utah State U., 1958, 1960; EdD, Brigham Young U., 1967.

Harris, James M. (1955) BS, MS, Utah State U., 1952, 1953; PhD, Cornell U., 1955.

Merrell, Betty D. Harrison (1961) BS, MS, PhD, Brigham Young U., 1959, 1960, 1965.

Walton, Wilbur T. (1971) BA, Brigham Young U., 1957; MS, PhD, U. of Utah, 1965, 1969.

Wootton, Richard R. (1961) BS, MS, Brigham Young U., 1956, 1961; EdD, Utah State U., 1969.

Young, James R. (1971) BA, MEd, Brigham Young U., 1965, 1966; PhD, George Peabody Coll. of Vanderbilt U., 1970.

Croatian

See Center for Language Studies.

Czech

See Germanic and Slavic Languages.

Dance

Lee Wakefield, Chair
294 RB, (801) 422-5087

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

The degree programs in the Department of Dance carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Dance is an art form expressed and communicated through human movement. Throughout history, and in every culture, people have danced. Dance incorporates the physical, mental, emotional, and spiritual aspects of each individual in creating a unique nonverbal expression of thoughts and feelings. As both process and product, dance has the power to refine neuromuscular skill, broaden understanding, increase creative potential, and expand aesthetic sensitivity. At Brigham Young University, dance celebrates the best in humankind and strives to enrich the lives of all who experience it.

The BYU Department of Dance has been accredited by the National Association of Schools of Dance (NASD) since 1989.

Career Opportunities

The majority of career opportunities in the dance field are teaching and performance related. Teaching opportunities are available in colleges and universities (for those with graduate degrees), public schools, private studios, health and fitness spas, special and adult education programs, day care centers, and recreation programs. Performing opportunities are available by audition with professional and regional companies and in theatrical, television, and film production.

Less common, but equally rewarding dance-related careers are also available in the areas of choreography and dance administration, therapy, criticism, history, research, notation, and reconstruction.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA Dance
BA Dance Education
(secondary teacher licensure)
BFA Music Dance Theatre
Minors Ballroom Dance
Modern Dance
World Dance

Students should see their college advisement center for help or information concerning the undergraduate programs.

General Information

The Department of Dance is made up of four divisions: Ballet, Ballroom Dance, World Dance, Modern Dance. These divisions work cooperatively to provide opportunities for all students at the university to develop their potential in dance.

Besides the wide variety of courses that apply toward the general education Wellness requirement, there are professional courses that develop leadership, performance, and choreographic ability in all types of dance. Performing opportunities are provided in on-campus concerts and off-campus performances with groups that tour throughout the world.

Requirements

1. Majors are counseled to maintain healthy lifestyle practices.
2. Dance technique courses (including Dance 243R and 244R) require a grade of at least B– for advancement to next level.

BA Dance (64 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this major.

Major Requirements

1. Students must pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
2. Complete the following prerequisite course:
   PDBio 220.
3. Complete the following:
   Dance 230, 244R, 261, 264, 342, 355, 459, 460, 461, 469.

   Note: Dance 469 is a capstone course.
4. Complete one course out of *each* of the following sets of courses:
   Dance 343 or 351.
   Dance 361 or 362.
   Dance 359R or 477.
5. Complete the following dance technique courses:
   Dance 241R, 243R, 290, 291R.

   Note: Qualified students may substitute higher-level technique courses for required lower-level technique courses with permission from the Dance Department.
6. Complete 9 hours from parts a and b below.

   Note: At least 5 hours must be completed in 300-level or above courses. R courses may count only once to complete this requirement, with the exception of modern dance and ballet courses (Dance 340R, 391R, 440R, 490R).

   Note: Dance 173, 273R, 373R offer different ethnic dance styles taught on a rotation basis. Please see the department for a rotation schedule.

   a. Complete at least one course from each of the following categories:
      (1). Foot articulation:
      Dance 135, 171, 173R (Irish), 235, 271, 273R (Irish or Spanish), 335, 371, 373R (Irish or Spanish).
      (2) Partnering:
      Dance 172, 184, 185, 273R (Hungarian), 280, 284, 285, 373R (Hungarian), 380, 382, 383, 384R, 385R, 483R, 485R, 495R.
      (3) Ethnic dance:
      Dance 173R, 270, 273R, 370, 373R.

      Note: One course may fulfill two of the required foot articulation, partnering, and ethnic dance categories, possibly reducing the number of enrollments for this requirement from three to two: Dance 173R, 273R, 373R (Irish) and Dance 273R (Spanish) will satisfy both articulation and ethnic categories; Dance 273R, 373R (Hungarian) will satisfy both partnering and ethnic categories.

b. Complete the remaining 6–8 hours from the following technique courses:
Dance 135, 171, 172, 173R, 184, 185, 231, 235, 270, 271, 273R, 280, 281, 284, 292, 293R, 331, 335, 340R, 370, 371, 373R, 380R, 382R, 383R, 384R, 385R, 390R, 391R, 393R, 440R, 483R, 485R, 490R, 494R, 495R, 500R, 540R.

7. Complete 2 hours from the following teaching methods courses:
Dance 336, 365, 366, 367, 376, 386, 396, 486, 487.

8. Complete 4 hours from the following performance company options:
Dance 229R, 332R, 348R, 368R, 378R, 388R, 429R, 468R, 478R, 488R, 489R, 498R.

9. Complete 10 hours from the following elective courses:
Dance 336, 359R, 361, 362, 363, 365, 366, 367, 376, 386, 396, 399R, 462, 464, 477, 486, 487, 562R, 563R.
P Mgt 321.
Up to 2.5 hours of any technique course 300-level or above in addition to previous technique requirements.

Note: R courses may count only once to complete this requirement, with the exception of modern dance and ballet courses 340R, 391R, 440R, 490R.

*Hours include courses that may fulfill university core requirements.

BA Dance Education (75–78 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this major.

Major Requirements

1. Students must pass a dance audition for acceptance into the major. Please see the Dance Department for further details.
2. At least 21 hours from items 5 to 7 below must be completed at BYU.
3. A teaching minor is recommended.
4. Complete the following prerequisite course:
PDBio 220.
5. Complete the following:
Dance 230, 241R, 243R, 261, 264, 290, 342, 343, 355, 460, 461, 464.
6. Complete two enrollments of the following:
Dance 340R, 440R, 500R (Chinese classical dance).
7. Complete 2.5 hours from the following:
Dance 231, 235, 270, 271, 273R, 280, 281, 284, 285, 291R, 292, 293R, 331, 335, 370, 371, 373R, 380R, 382R, 383R, 384R, 385R, 390R, 391R, 393R, 440R, 483R, 485R, 490R, 494R, 495R.
8. Complete the following composition and improvisation courses in the sequence listed:
a. Complete the following:
Dance 244R, 362, 363.
b. Complete one course from the following:
Dance 361, 462.
c. Complete the following:
Dance 469.
9. Complete one of the following performance courses:
Dance 348R, 368R, 468R.
10. Complete the Professional Education Component:
a. Complete the following:
CPSE 402.
Dance 276R, 346, 366, 466 (prerequisite: Dance 243R, 244R, 261).
IP&T 286.
Sc Ed 350, 353.

Note: Fingerprinting and FBI clearance must be completed before entry into Dance 466.

Note: Sc Ed 350 must be taken prior to or concurrently with Dance 466.

b. Complete 12 hours from the following:
Sc Ed 476R.

*Hours include courses that may fulfill university core requirements.

BFA Music Dance Theatre (76.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Any grade below C– in major courses is not acceptable for graduation. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
Music 260R.
7. Complete 4 hours of the following:
Music 360R.
8. Complete the following:
Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 390R.
9. Complete the following:
TMA 114, 121, 123, 124, 223, 229, 267, 421, 427.
10. Complete the following MDT Seminar courses:
Music 328.
Dance 328.
TMA 328.
11. Complete the following History of Music Dance Theatre courses:
Music 300.
Dance 300.
TMA 300.
12. Complete the following Senior Performance Project courses:
Music 426.
Dance 426.
TMA 426.

13. Complete 9.5 hours of electives from the following music, dance, or theatre courses:
    Music 186, 319R, 360R, 363, 386R, 399R, 402A,B, 472.
    Dance 335, 340R, 362, 363, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429, 443R, 515R.

*Hours include courses that may fulfill university core requirements.

Minor Ballroom Dance (15 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must complete the following:
   Dance 284, 285 with a grade of B– or better.
2. At least 10 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 260, 280, 284, 285.
4. Complete one course from the following:
   Dance 386, 486, 487.
5. Complete 5 hours from the following:
   Dance 380R, 382R, 383R, 384R, 385R, 483R, 485R.

   Note: No more than 2 hours may be completed from each of the listed R technique courses.
6. Complete 2 hours from the following:
   Dance 388R, 488R.

*Hours include courses that may fulfill university core requirements.

Minor Modern Dance (18.5–20 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must:
   a. Complete the following:
      Dance 241R with a grade of B– or better.
   b. Pass a dance audition for acceptance into the minor. Please see the Dance Department for further details.
2. At least 10.5 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 241R, 260, 264, 290.
4. Complete the following:
   Dance 243R, 244R, 362 (modern dance section), 363.
5. Complete 2 hours from the following:
   Dance 365, 366, 367.
6. Complete one course from the following:
   Dance 340R, 348R, 365, 366, 367, 368R, 462, 468R.

   Note: R-suffix courses may not be taken more than once for minor credit.

*Hours include courses that may fulfill university core requirements.

Minor World Dance (15.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding requirements for admission to this minor.

Minor Requirements

1. Before being accepted into the minor, a student must:
   a. Complete the following:
      Dance 270 with a grade of B or better.
   b. Pass a dance audition for acceptance into the minor. Please see the Dance Department for further details.
2. At least 8 hours must be completed at BYU.
3. Complete the following core courses:
   Dance 260, 270, 271, 370.
4. Complete the following:
   Dance 172, 376, 477.
5. Complete two courses from the following:
   Dance 131, 140, 180, 190.
6. Complete 2 hours from the following:
   Dance 273R (no more than 1 hour may be taken in any one ethnic style).
7. Complete 2 hours from the following:
   Dance 371, 373R, 378R.

   Note: Dance 373R and 378R may not be taken more than once for credit toward the minor.

*Hours include courses that may fulfill university core requirements.

Dance (Dance)

Undergraduate Courses

130. Aerobic Dance. (0.5:0:2) Independent Study also.
Dance and other rigorous activities performed to music to attain cardiovascular fitness.

131. Jazz Dance, Beginning. (0.5:0:2)

134R. Specialty Dance. (0.5:0:2 ea.)

135. Tap Dance, Beginning. (0.5:0:2)

140. Modern Dance, Beginning. (0.5:0:2)

164. Movement for Musicians. (0.5:0:2)
Developing strength, flexibility, responsiveness, centering, breath, and freedom of movement through both fine and gross motor activities.

170. World Dance, Beginning. (0.5:0:2)
Dances from selected cultures at the beginning skill level.

171. Clog Dance, Beginning. (0.5:0:2)
Beginning steps and technique, emphasizing slide/drag.

172. Country Western and Square Dance. (0.5:0:2)
Fundamental dance skills in western styles of country, round, and square dance.

173R. Ethnic Dance, Beginning. (0.5:0:2 ea.)
Ethnic dances selected from the Irish, Polynesian, or Spanish cultures.

180. Social Dance, Beginning. (0.5:0:2) Independent Study also.
Traditional and popular ballroom dance; also social skills.

181. Country Western Social Dance, Beginning. (0.5:0:2)
Beginning popular country western dance.

184. Ballroom Dance, International Standard, Beginning. (0.5:0:2)
Bronze level. Waltz, fox-trot, tango, quickstep.

185. Ballroom Dance, International Latin, Beginning. (0.5:0:2)
Bronze level. Cha-cha, rumba, samba, jive, paso doble.

190. Ballet, Beginning. (0.5:0:2)
Fundamentals of ballet technique for those with little or no previous training.

229R. Dance Performance 1. (1–3:Arr.:Arr. ea.) Prerequisite: production director's consent.
Participation as dancers in concert dance production.

230. Conditioning and Injury Prevention for Dance. (2:3:3) F, W Prerequisite: PDBio 220.
Developing conditioning programs specific to dance. Recognizing and resolving dance injuries. Practical application.

231. Jazz Dance Technique 1. (1:0:3) Prerequisite: Dance 131 or equivalent; 240R or 290.

235. Tap Dance Technique 1. (1:0:3) Prerequisite: Dance 135 or equivalent.

240R. Modern Dance Technique and Theory 1. (1.5:0:4.5 ea.)
Fundamental dance skills and basic theories.

241R. Modern Dance Technique and Theory 2. (2.5:0:7.5 ea.) Prerequisite: experience in modern dance equivalent to Dance 240R; instructor's consent.

243R. Studio Workshop in Modern Dance Technique and Theory. (2.5:0:7.5 ea.) Prerequisite: Dance 241R or equivalent; instructor's consent; concurrent enrollment in Dance 244R the first time taken.
Technique and theory in a workshop setting.

244R. Studio Workship in Modern Dance Improvisation and Composition. (1:0:3 ea.) Prerequisite: Dance 241R or equivalent; instructor's consent; concurrent enrollment in Dance 243R the first time taken.
Beginning improvisation and composition in a workshop setting.

260. Introduction to Dance. (3:3:0) F, W Honors also.
Critical analysis of dance as a cultural and expressive art form, studied through lecture, reading, research, multimedia presentations, and practical movement experiences. No previous dance experience required.

261. Orientation to Dance. (3:3:0)
Introduction to dance as a discipline and at Brigham Young University.

264. Music for Dancers. (2:1:2)
Basic music notation, simple and complex rhythmic patterns, and polyrhythms; analysis of selected international music styles; brief historical survey.

270. World Dance Technique 1. (1:0:3) Prerequisite: Dance 170 or equivalent.
Techniques of selected traditional, folk, and national dance styles.

271. Clog Dance Technique 1. (1:0:3) Prerequisite: Dance 171 or equivalent.
Intermediate steps and technique; buck styling; introduction to choreography.

273R. Ethnic Dance Technique 1. (1:0:3 ea.) F, W, Sp Prerequisite: Dance 173R or previous dance experience.
Accelerated ethnic dance techniques selected from the Chinese, Hungarian, Irish, Polynesian, Spanish, or Ukrainian cultures.

276R. Exploration of Teaching Dance. (3:4:8 ea.) F 1st block Prerequisite: Dance 241, 261; Dance 243, 244 or concurrent enrollment; major approval.
Field-based, initial teaching experience directed at helping prospective teachers experience demands and opportunities associated with teaching secondary students.

280. Social Dance, Intermediate. (1:0:3) Prerequisite: Dance 180 or equivalent.

281. Country Western Social Dance, Intermediate. (1:0:3) Prerequisite: Dance 172, 181, or equivalent.
Intermediate-level instruction in popular country western dances.

284. Ballroom Dance, International Standard, Technique 1. (1:0:3) Prerequisite: Dance 184 or equivalent.
Silver level. Waltz, fox-trot, tango, quickstep.

285. Ballroom Dance, International Latin, Technique 1. (1:0:3) Prerequisite: Dance 185 or equivalent.
Silver level. Cha-cha, rumba, samba, jive, paso doble.

290. Ballet Accelerated Technique 1. (1.5:0:4.5) F, W, Sp

291R. Ballet Technique 2. (2.5:0:7.5 ea.) F, W, Sp, Su Prerequisite: Dance 290 or equivalent.

292. Character Dance. (1:0:3)
Male and female techniques of traditional national folk forms stylized with classical ballet discipline.

293R. Ballet Pointe, Beginning. (0.5:0:1 ea.) Prerequisite: concurrent enrollment in Dance 291R.

300. History of Music Dance Theatre. (1:1:0) Prerequisite: Music 290; Dance 243R, 244R; TMA 114; concurrent enrollment in Music 300, TMA 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Dance in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

326. Rhythm and Dance. (2:1:2)
Methodology course for elementary education majors; creative dance and structured rhythmic dance forms.

328. Junior Music Dance Theatre Seminar. (1:Arr.:Arr.) Prerequisite: music dance theatre BFA major status; TMA 114, 229; concurrent enrollment in Music 328, TMA 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

331. Jazz Dance Technique 2. (1.5:0:4.5) Prerequisite: Dance 231 or equivalent; 241R, 242, or 291R.

332R. Cougarette Collegiate Performing Team. (2:0:14 ea.) F, W Prerequisite: audition.

335. Tap Dance Technique 2. (1:0:3) Prerequisite: Dance 235 or equivalent.

336. Methods of Teaching Aerobic Dance. (2:2:2) F, W Prerequisite: Dance 342 or ExSc 362; Dance 343 or ExSc 363. Recommended: NDFS 100.

340R. Modern Dance Technique and Theory 3. (2.5:0:7.5 ea.) Prerequisite: Dance 243R or equivalent experience in modern dance; instructor's consent.

342. Kinesiology and Related Sciences for Dancers. (4:4:0) W, Sp even yr. Prerequisite: PDBio 220, Dance 230.
Study and analysis of the neuromusculoskeletal system in practical application to dance for more efficient use of the body and reduction of injuries.

343. Principles of Somatics. (2:2:1) F Prerequisite: Dance 243 and 244, or 291R; 342.
Experiential approach to movement training including body patterning. Integration and personal expression of body and movement choices.

346. Methods of Teaching Dance to Social Groups in Secondary Education. (2:1:2) F Recommended: Dance 170, 180. For dance education majors only.
Teaching methodologies in social and world dance, specifically to prepare students in secondary dance education to teach these forms in the public schools.

348R. Kinnect. (1–2:1:6 ea.) W, Sp Prerequisite: audition.
Educational outreach dance company specifically focusing on developing teaching, creative, and performance skills.

351. Laban Movement Analysis. (2:2:1) W Prerequisite: Dance 243R, 244R, 291R.
Tools to make sense of and derive meaning from movement. Constituent movement components that facilitate accuracy in teaching, performance, and choreography.

355. Dance Production, Introduction. (2:2:1)
Principles and practices of technical aspects of dance production.

356. Rhythmic Activities Through Dance. (2:2:2) W Prerequisite: physical education K–12 major status.
Structured dance forms for the physical education public school teacher: folk dance, aerobic dance, and American social dance styles. Methodology.

359R. Special Topics and Issues. (2:2:0 ea.) F, W Prerequisite: Dance 243, 244, 261.
Seminar with rotating topics and issues selected from: dance and health, dance and identity, dance and technology, and dance philosophy and aesthetics.

361. Music Dance Theatre Choreographic Styles. (2:0:6) W Prerequisite: Dance 231, 235, 243, 244, 291R, TMA 229.
Physical and conceptual aspects of dance styles as they relate to music dance theatre.

362. Dance Composition, Intermediate. (2:0:4) F, W Prerequisite: Dance 244R.
Fundamental compositional structure emphasizing visual, kinesthetic, and musical aspects.

363. Dance Improvisation, Intermediate. (1:0:3) F Prerequisite: Dance 244R.

365. Creative Dance for Elementary Education. (2:1:2) W Prerequisite: Dance 243R, 244R, or approved Kinnect membership.
Theory and teaching experience in creative movement for preschool and elementary school children.

366. Methods of Teaching Modern Dance. (2:2:2) W, Sp, odd yr. Prerequisite: Dance 243R, 244R (or equivalents); Dance 261.
Planning, teaching, and evaluating lessons.

367. Methods of Teaching Children's Creative Dance. (2:1:2) F, Sp odd yrs. Prerequisite: Dance 243R, 244R.

368R. DancEnsemble—Modern Dance Performance and Choreography. (1–2:1:2 ea.) F, W Prerequisite: audition.
Experiences in modern dance choreography and performance.

370. World Dance Technique 2. (1:0:3) W Prerequisite: Dance 270.
In-depth dance technique of selected traditional, folk, and national dance styles.

371. Clog Dance Technique 2. (1:0:3) Prerequisite: Dance 271 or equivalent.
Advanced technique and steps; buck and Canadian styling and free styling.

373R. Ethnic Dance Technique 2. (1:0:3 ea.) Prerequisite: Dance 273R or equivalent.
Advanced ethnic dance techniques selected from the Chinese, Hungarian, Irish, Polynesian, Spanish, or Ukrainian cultures.

376. Methods of Teaching World Dance. (2:2:3) Recommended: Dance 170 or equivalent.

378R. Folk Dance Performance, Intermediate. (1:0:3 ea.) Prerequisite: audition.
Performance techniques and experience in folk dance.

380R. Social Dance, Advanced. (1:0:3 ea.) Prerequisite: Dance 280 or equivalent.

382R. Ballroom Dance, International Standard, Technique 2. (1:0:3 ea.) Prerequisite: Dance 284 or equivalent; instructor's consent.
Gold 1 level. Waltz, tango, fox-trot, quickstep.

383R. Ballroom Dance, International Latin, Technique 2.(1:0:3 ea.) Prerequisite: Dance 285 or equivalent; instructor's consent.
Gold 1 level. Cha-cha, samba, rumba, paso doble.

384R. Ballroom Dance, International Standard, Technique 3. (1:0:3 ea.) Prerequisite: Dance 382R or equivalent; instructor's consent.
Gold 2 level. Waltz, fox-trot, tango, quickstep.

385R. Ballroom Dance, International Latin, Technique 3 (1:0:3 ea.) Prerequisite: Dance 383R or equivalent; instructor's consent.
Gold 2 level. Cha-cha, rumba, samba, jive, paso doble.

386. Methods of Teaching Social Dance. (2:1:2) Recommended: Dance 180 or equivalent.
Pedagogy training in social dance at the bronze and silver skill levels.

388R. Ballroom Dance Performance, Intermediate. (1:0:3 ea.) Prerequisite: audition.
Performance techniques and experience in ballroom dance.

390R. Ballet Technique 3. (2.5:0:7.5 ea.) F, W, Sp, Su Prerequisite: audition.

391R. Ballet Technique 4. (2.5:0:7.5 ea.) Prerequisite: audition.

393R. Ballet Pointe, Intermediate. (1:0:3 ea.) Prerequisite: concurrent enrollment in Dance 391R.

396. Methods of Teaching Ballet. (2:2:2) W alt. yr. Prerequisite: Dance 390R or equivalent.
Teaching classical ballet from preballet through advanced; includes analysis of Bournonville, Cecchetti, Vaganova, RAD, Kneeland, and SAB methods.

399R. Academic Internship: Dance. (1–4:0:50 ea.)

426. Music Dance Theatre: Senior Performance Project. (1:0:6) F Prerequisite: TMA 361; concurrent enrollment in Music 426, TMA 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

429R. Dance Performance 2. (1–3:Arr.:Arr. ea.) Prerequisite: production director's consent.
Participation as dancers in concert dance production.

440R. Modern Dance Technique and Theory 4. (2.5:0:7.5 ea.) Prerequisite: Dance 340R or equivalent; instructor's consent.

459. Seminar in Dance. (1:1:0) W
Seminar exposing students to a variety of dance-related topics. Instruction by multiple dance professionals in their areas of expertise.

460. Dance History to 1850. (2:2:0) F
Survey of dance in tribal cultures and ancient through romantic historical periods, emphasizing dance of Western civilization.

461. Dance History from 1850. (2:2:0) W
Survey of dance in modern and postmodern historical periods, emphasizing dance of Western civilization.

462. Dance Composition, Advanced. (1:0:3) Prerequisite: Dance 362.
Creation and presentation of complete choreographic works.

464. Dance Accompaniment. (1:1:1) F, Su odd yr. Prerequisite: Dance 264.

466. Dance Teaching Practicum. (2:2:4) F
Pre–student teaching course giving students practical teaching and classroom management experience in a mentored environment. Discussion lab integrating theory and experience.

468R. The Dancers' Company—Modern Dance Performance. (2:0:12 ea.) Prerequisite: audition.
Performing modern dance repertory and new works on and off campus.

469. Senior Seminar in Dance. (2:0:Arr.) Prerequisite: Dance 462 for all dance education majors and for composite dance and modern dance emphasis majors who choose to do a choreographic project.

477. Dance—A Reflection of Culture. (2:2:0) W even yr. Prerequisite: Dance 376.
Study of dance as an expression of culture.

478R. Folk Dance Performance Company. (2:0:Arr. ea.) F, W Prerequisite: audition.
Performance techniques with International/American Folk Dance Company.

483R. Ballroom Dance, International Standard, Technique 4. (1:0:3 ea.) Prerequisite: Dance 384R or equivalent; instructor's consent.
Gold bar level: waltz, tango, fox-trot, quickstep, Viennese waltz.

485R. Ballroom Dance, International Latin, Technique 4. (1:0:3 ea.) Prerequisite: Dance 385R or equivalent; instructor's consent.
Gold bar level: cha-cha, rumba, samba, jive, paso doble.

486. Theory and Notation of Ballroom Dance, International Standard. (2:0:4) Prerequisite: Dance 384R.
Theory and notation of International Standard Ballroom Dance and preparation for professional teaching certification examinations.

487. Theory and Notation of Ballroom Dance, International Latin. (2:0:4) Prerequisite: Dance 385R.
Theory and notation of International Latin Dance and preparation for professional teaching certification examinations.

488R. Ballroom Dance Performance Company. (2:0:6–8 ea.) Prerequisite: audition.
Performance techniques and experience with BYU Ballroom Dance Company.

489R. Preparation for Ballroom Dance Competitions. (1:0:2)
Creation and presentation of ballroom competitive routines, emphasizing visual and musical aspects.

490R. Ballet Technique 5. (3:0:9.5 ea.) F, W Prerequisite: audition.
Advanced ballet technique, including advanced pointe work for women and advanced technique for men.

494R. Ballet Variations. (1:0:1–2 ea.) F Prerequisite: Dance 391R and 393R or equivalents.

495R. Pas de Deux. (1:0:1–2 ea.) W Prerequisite: audition.
Ballet partnering techniques.

498R. Ballet Performance Company. (2:0:10 ea.) F, W Prerequisite: audition and concurrent enrollment in Dance 391R or 490R; 494R or 495R.
Performance technique and experience with BYU Theatre Ballet.

500-Level Graduate Courses (available to advanced undergraduates)

500R. Workshop in Dance. (1–3:Arr.:Arr. ea.)
Experience with Workshop in Dance: aerobic, ballet, ballroom, folk, or modern.

540R. Modern Dance Technique and Theory 5. (2:0:5 ea.) Su Prerequisite: Dance 340R or instructor's consent.
Advanced technique, with movement combinations emphasizing dance as a performance art.

562R. Modern Dance Composition, Advanced. (1:0:4 ea.) Su Prerequisite: Dance 362 or instructor's consent.
Development of substantive modern dance compositional works based on intent, form, and content relationships.

563R. Modern Dance Improvisation, Advanced. (1:0:4 ea.) Su Prerequisite: Dance 363 or instructor's consent.
Developing advanced skills of immediate movement response to enhance nonverbal communication.

Dance Faculty

Professors
Black, Catherine H. (1972) BPE, U. of Alberta, Canada, 1968; MFA, U. of Utah, 1972.
Davis, Susanne Johnson (1974) BS, MS, Brigham Young U., 1967, 1971.
Debenham, Hadd Patrick (1976) BS, Brigham Young U., 1973; MA, U. of California, Los Angeles, 1976.
Gibb, Sara Lee (1965) BA, MS, Brigham Young U., 1959, 1970.

Associate Professors
Allen, Sandra Birch (1969) BFA, MFA, U. of Utah, 1964, 1967.
Austin, Edwin G. (1984) BS, MA, Brigham Young U., 1978, 1980.
Berrett, Marilyn (1985) BA, U. of Utah, 1979; MA, Brigham Young U., 1984.
Dijkwel, Jan (1998) BFA, Amsterdam Coll. of Fine Arts (Netherlands), 1988; MA, MCP Hahnemann (Drexel) U., 1998.
Holman, Curt (1993) BA, MA, Brigham Young U., 1989, 1996.
Huang, Jiamin, (2006) BA, Beijing Dance Academy, China, 1984; MA, Brigham Young U., 1998.
Musil, Pam (1993) BA, MA, Brigham Young U., 1978, 1985.
Phillips, Rebecca (1994) BA, Brigham Young U., 1987; MFA, U. of Utah, 1990.
Prohosky, Caroline (1986) BS, Brigham Young U., 1972; MA, U. of California, Los Angeles, 1980.
Wakefield, B. Lee (1980) BA, MA, Brigham Young U., 1977, 1982.
West, Colleen Anderson (1993) BA, MA, Brigham Young U., 1983, 1985.

Assistant Professor
Robison, Shani (2005) BA, MA, Brigham Young U., 1995, 1999.

Assistant Clinical Professor
Nuttall, Ron (2003) BS, MS, Brigham Young U., 1983, 1987.

Part-Time Faculty
Senior Lecturers: Ric Chitwood, Marci Edgington, Christine Ollerton, Delynne Peay, Kathleen Sheffield, Linda Wakefield.
Associate Lecturers: Vickie Austin, Jacque Bell, Jeanette Geslison, Claudia Hill, Sharon Holman, Marsha Russell, Susan Wood.
Assistant Lecturers: Jennifer Barlow, Tara Eyre, Susan Lloyd, Jodi Maxfield, Robin McLelland, Janalyn W. Memmott, Kate Monson, Jana Shumway, Lisa Stoddard, Cynthia Streeter, Lynne Thompson.
Instructors: Lindsy Cieslwiez, Jenny Giauque-Tingey, Brent Keck, Betsy Passmore, Ruth Robbins, Kathleen Thomas, Kau'i Tuia, Karyn Willis, Emilee Wright.

Emeriti
Jensen, Mary Bee (1952) BA, Park Coll., 1939; MA, Brigham Young U., 1963.
Lyman, Emerson S. (1973) BS, MA, Brigham Young U., 1957, 1968; EdS, U. of Utah, 1972.

Danish

See Department of Humanities, Classics, and Comparative Literature.

Design

See Visual Arts.

Dutch

See Germanic and Slavic Languages.

Early Childhood Education

See Teacher Education.

Economics

Michael R Ransom, Chair
130 FOB, (801) 422-3463

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Economics are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Economics examines how societies choose to allocate scarce resources among competing uses. A broad range of contemporary policy issues are studied in fields such as natural resource and environmental economics; economic development and growth; international trade and finance; economic history; the organization of industries; the development and efficiency of law; business cycles; labor markets; and public and private finance.

Career Opportunities

Professional economists work in three basic areas: business, government, and academics. Undergraduates generally pursue training beyond their BS/BA in economics if they wish to become professional economists.

Those in business forecast and analyze various aspects of the economy or of particular markets and most often work for brokerage firms, business or economic consulting firms, investment banks, insurance companies, or large manufacturing firms.

Those in government accumulate, interpret, and analyze national and international data in support of policy development and work for agencies such as the U.S. State Department, Treasury Department, Bureau of Labor Statistics, and Office of the Trade Representative; for state planning bodies and regulatory commissions; or for international bodies like the World Bank or IMF.

Academic economists teach and conduct research at colleges and universities. Entry into these positions requires training at least as far as the master's level; for the most part, the professional degree is the PhD.

Undergraduates who are not interested in postundergraduate study in economics generally pursue one of three options: graduate training in a profession (e.g., the MBA, MPA, JD, or MD); employment with a business consulting, economic consulting, brokerage, or other specialized service provider that relies to a substantial degree on economic analysis; or employment with a government agency or entity that relies on economic analysis and data. In the latter two areas, those with BAs typically gather and analyze data and provide research support under the direction of professional staff economists. A BA/BS in economics is also very good preparation for those interested in foreign service careers or work with organizations in economic development, international finance, or actuarial licensing. Many undergraduates pursue business careers, including those of finance, marketing, sales, and production.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA Economics
BS Economics
Minor Economics

Students should see their college advisement center for help or information concerning the undergraduate programs.

BA Economics (40–57 hours*)

Major Requirements

1. Minimum residence requirement is 21 hours in the major.
2. Major courses: complete the following with a grade of C– or better:
   Econ 110, 378 (or equivalent), 380, 381, 382, 388.

   Note: Equivalence to Econ 378 includes Stat 321 and Math 343.
3. Supporting courses: complete the following:
   Math 112 (Math 119 with a B+ or better may be substituted).

   Note: A *university* calculus course such as Math 112 or 113 is strongly recommended. Deferred students are encouraged to take a refresher math course such as Eng T 295R before or concurrent with Econ 378, 380, or 381.

   Note: For students contemplating graduate work in economics, the 500-level economics courses plus Math 113, 214, and 343 are strongly recommended.
4. Complete GE Foreign Language or 7 hours of mathematics in addition to Math 112.
5. Complete 15 hours from the following (at least 12 hours must be from courses 410–588):
   Econ 210, 213R, 215, 230, 253, 257, 274, 275, 410, 413R, 415, 420, 421, 431, 432, 440, 450, 453, 458, 459, 463, 465, 468, 474, 475, 476, 478, 482, 486, 580, 581, 582, 586, 588.

   Note: The 200-level field courses are intended as interim courses as a student moves from Econ 110 into the 300-level core courses. Once the student has completed Econ 380, he or she is strongly encouraged to take the 400-level rather than the 200-level field courses.

   Note: Students should not take both a 200-level and a 400-level course with the same last two digits (e.g., Econ 275 and 475), although they are encouraged to take the 300- and 500-level theory classes (e.g., Econ 380 and 580).

*Hours include courses that may fulfill university core requirements.

BS Economics (37 hours*)

Major Requirements

1. Minimum residence requirement is 21 hours in the major.
2. Major courses: complete the following with a grade of C– or better:
   Econ 110, 378 (or equivalent), 380, 381, 382, 388.

   Note: Equivalence to Econ 378 includes Stat 321 and Math 343.

3. Supporting courses: complete the following:
   Math 112 (Math 119 with a B+ or better may be substituted).

   Note: A *university* calculus course such as Math 112 or 113 is strongly recommended. Deferred students are encouraged to take a refresher math course such as Eng T 295R before or concurrent with Econ 378, 380, or 381.

   Note: For students contemplating graduate work in economics, the 500-level economics courses plus Math 113, 214, and 343 are strongly recommended.

4. Complete 15 hours from the following (at least 12 hours must be from courses 410–588):
   Econ 210, 213R, 215, 230, 253, 257, 274, 275, 410, 413R, 415, 420, 421, 431, 432, 440, 450, 453, 458, 459, 463, 465, 468, 474, 475, 476, 478, 482, 486, 580, 581, 582, 586, 588.

   Note: The 200-level field courses are intended as interim courses as a student moves from Econ 110 into the 300-level core courses. Once the student has completed Econ 380, he or she is strongly encouraged to take the 400-level rather than the 200-level field courses.

   Note: Students should not take both a 200-level and a 400-level course with the same last two digits (e.g., Econ 275 and 475), although they are encouraged to take the 300- and 500-level theory classes (e.g., Econ 380 and 580).

*Hours include courses that may fulfill university core requirements.

Minor Economics (18 hours*)

Minor Requirements

1. Complete the following:
   Econ 110, 380, 381.
2. Complete 9 additional hours in economics courses.

*Hours include courses that may fulfill university core requirements.

Economics (Econ)

Undergraduate Courses

110. Economic Principles and Problems. (3:3:0) Honors also.
Strengths and weaknesses of markets and governments for solving problems of social organization or conflict, including policy response to inflation, unemployment, pollution, poverty, growth, etc.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: faculty advisor's and department chair's prior written consent.
Not counted toward required major or minor hours.

210. Introduction to Agricultural Economics. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic principles and policies applied to producing and allocating agricultural products.

213R. Topics in Economic Analysis. (1–3:Arr.:Arr. ea.) Prerequisite: Econ 110 or equivalent.

215. History of Economic Thought. (3:3:0) Prerequisite: Econ 110 or equivalent.
Development of economic doctrines from preclassical through contemporary economics. Contributions of individual writers and schools of thought.

230. Economic Development and Growth. (3:3:0) Prerequisite: Econ 110 or equivalent.
Problems and processes of economic growth and development, emphasizing less-developed nations.

253. Money and Banking. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic principles applied to monetary analysis and policy and the banking structure.

257. International Trade and Finance. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economic analysis of the mechanisms, problems, institutions, and policies of trade among countries. Financial and monetary arrangements that facilitate trade.

274. American Economic History. (3:3:0) Prerequisite: Econ 110 or equivalent.
Impact on households, firms, and government of America's transformation from a rural, agricultural colony to a major industrial nation.

275. Public Finance. (3:3:0) Prerequisite: Econ 110 or equivalent.
Economics of decision making in the public sector; cost-benefit analysis and efficiency-equity issues of taxation and expenditure policies.

280. Introduction to Economic Analysis and Reasoning. (3:3:0) Prerequisite: Econ 110; Math 112 or 119. Not for majors or major credit.
Maximizing self-interest model of behavior and the environment, and constraints within which business and household decisions are made.

378. Statistics for Economists. (3:3:0) Prerequisite: Econ 110, Math 112 (or Math 119 with a B+ or better).
Introduction to matrix algebra and statistics in preparation for regression analysis. Other topics include: probability, random variables, density and distribution functions, estimation, hypothesis testing.

380. Intermediate Price Theory 1. (3:3:0) Prerequisite: Econ 110; Math 112 (or Math 119 with a B+ or better).
Producer, consumer, and equilibrium theories; mathematical techniques of unconstrained and constrained optimization introduced and applied extensively.

381. Intermediate Macroeconomics. (3:3:0) Prerequisite: Econ 110; Math 112 or concurrent enrollment.
Intermediate macroeconomic theory, emphasizing income, unemployment, and price-level analysis.

382. Intermediate Price Theory 2. (3:3:0) Prerequisite: Econ 380.
Welfare theory, imperfect information, imperfect competition, uncertainty, externalities, and public goods.

388. Introduction to Econometrics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Mathematical and statistical techniques used in estimating, predicting, and testing hypotheses associated with quantifiable economic relationships.

410. Agricultural Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Application of supply and demand concepts to price determination and analysis in agricultural markets.

413R. Topics in Economic Theory. (1–5:Arr.:Arr. ea.) Prerequisite: Econ 378 or equivalent, 380, 381, and/or 382, depending on topic.

415. History of Economic Thought. (3:3:0) Prerequisite: Econ 380, 381.

420. Economics of Antitrust Law and Regulation. (3:3:0) Prerequisite: Econ 380. Recommended: Econ 382.
Economic analysis of reasons for—and effects of—antitrust laws and regulation in selected areas, including utilities, telecommunications, transportation, energy, health, safety, and the environment.

421. Law and Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Common law allocative mechanisms (contract, tort, and property law) as alternatives to collective intervention when markets fail; consideration of economic logic of law.

431. Economic Development. (3:3:0) Prerequisite: Econ 382 or concurrent enrollment; Econ 388 or Pl Sc 328.
Microeconomic analysis of the causes of income differences across countries.

432. Economic Growth. (3:3:0) Prerequisite: Econ 380, 381. Recommended: Econ 388.
Theory and evidence relating to economic growth, including physical and human capital accumulation, population, technological change, institutions, and government.

440. Natural Resources and Environmental Economics. (3:3:0) Prerequisite: Econ 380; 388 or concurrent enrollment.
Economic theory applied to allocation of natural resources and environmental amenities. Issues relating to externalities, common property resources, public goods, allocation of depletable natural resources over time, economic factors of environmental polarization, and others.

450. Financial Economics. (3:3:0) Prerequisite: Econ 380, 382, 388.
Theory of financial economics, emphasizing capital markets, investment decisions, choice, capital asset pricing model, futures and options markets, efficient markets, and capital structures.

453. Monetary Theory and Policy. (3:3:0) Prerequisite: Econ 380, 381; 388 or concurrent enrollment.
Macroeconomic aspects of money demand, money supply, the monetary transmission mechanism, central bank policy, and other current issues.

458. International Trade Theory and Applications. (3:3:0) Prerequisite: Econ 380.
Microeconomic analysis of why nations trade, who wins and loses from trade, and the costs and benefits of various trade policies.

459. International Monetary Theory. (3:3:0) Prerequisite: Econ 380, 381, 388.
Monetary and macroeconomic aspects of international relations dealing primarily with short-run balance-of-payments disequilibrium and adjustments.

463. Economics of the Labor Market. (3:3:0) Prerequisite: Econ 380; 388 or concurrent enrollment.

465. Health Economics. (3:3:0) Prerequisite: Econ 382; 388 or concurrent enrollment.
Economic models of health-care markets, including the supply and demand for health and health care, insurance, market imperfections, public-sector involvement, and regulation.

468. Urban Economics. (3:3:0) Prerequisite: Econ 380; 388 or concurrent enrollment.
Economic models relating to spatial location of economic activities and development of cities. Application of economic theory to problems and policies associated with housing, urban transportation, congestion, local government finance, and other urban problems.

474. Topics in Economic History. (3:3:0) Prerequisite: Econ 380; 388 or concurrent enrollment.

475. Public Economics. (3:3:0) Prerequisite: Econ 380, 382, 388.

476. Industrial Organization. (3:3:0) Prerequisite: Econ 378 or equivalent, 380, 382.

478. Game Theory and Economics. (3:3:0) Prerequisite: Econ 380; 388 or concurrent enrollment.
Application of game theory to study strategic interaction between individuals and organizations. Applications include imperfect competition, insurance markets, and bargaining.

482. Welfare Economics. (3:3:0) Prerequisite: Econ 378, 380, 382; or equivalents.
General equilibrium theorems and considerations that must guide applied economic work and provide quantitative information on the effects of alternative policy measures.

486. Mathematical Economics. (3:3:0) Prerequisite: Econ 378 or equivalent, 380.
Further development of optimization and comparative statics. Differential equations and dynamic analysis.

490. Senior Paper. (1:0:0) Prerequisite: instructor's consent.

498R. Readings in Economics. (1–2:Arr.:0 ea.) Prerequisite: instructor's consent.
P/F grade only; maximum of 2 credit hours; 3 hours of reading per week required for each credit hour taken. Not counted toward required major hours.

500-Level Graduate Courses (available to advanced undergraduates)

580. Advanced Price Theory. (3:3:0) Prerequisite: Econ 378, 380, 382; or equivalents.
Modern theories of consumers, producers, and competitive equilibria.

581. Advanced Macroeconomics. (3:3:0) Prerequisite: Econ 380, 381, 382, 388; or equivalents.
Theory of determining national income, employment, inflation, and interest rates. Issues of economic fluctuations, economic growth, and monetary and fiscal policy.

582. Topics in Mathematical Economics. (3:3:0) Prerequisite: Econ 580.
Advanced topics such as risk and uncertainty, game theory, and capital theory.

586. Advanced Mathematics for Economists. (3:3:0) Prerequisite: Econ 380, Math 214; or equivalents.
Advanced mathematical methods that have proved useful in economic modeling.

588. Econometrics. (3:3:0) Prerequisite: Econ 380, 381, 382, 388; or equivalents.
Theory and practice of formulating, estimating, and analyzing economic models.

599R. Academic Internship: Supervised Management and Training. (2–6:0:Arr. ea.) Prerequisite: course work pertinent to proposed experience.

Economics Faculty

Professors

Butler, Richard J. (1990) BA, U. of Utah, 1973; MA, PhD, U. of Chicago, 1979.
Jensen, Farrell E. (1982) BS, Utah State U., 1964; MS, PhD, Kansas State U., 1966, 1972.
Kearl, J. R. (1975) BA, Utah State U., 1971; PhD, Massachusetts Inst. of Technology, 1975.
Lambson, Val E. (1989) BA, Brigham Young U., 1979; MA, PhD, U. of Rochester, 1982, 1983.
McDonald, James B. (1972) BS, MS, Utah State U., 1964, 1967; PhD, Purdue U., 1970.
Pope, C. Arden, III (1984) BS, Brigham Young U., 1978; MS, PhD, Iowa State U., 1981.
Pope, Clayne L. (1970) BA, Brigham Young U., 1965; MA, PhD, U. of Chicago, 1968, 1972.
Pope, Rulon D. (1982) BS, Brigham Young U., 1971; PhD, U. of California, Berkeley, 1976.
Ransom, Michael R. (1988) BA, Brigham Young U., 1977; MA, PhD, Princeton U., 1980, 1983.
Spencer, David E. (1986) BA, Brigham Young U., 1971; MS, PhD, Texas A&M U., 1973, 1974.

Associate Professors

Bradford, Scott C. (1998) BA, Brigham Young U., 1987; MPA, Princeton U., 1991; PhD, Harvard U., 1998.
Cardon, James H. (1996) BA, Brigham Young U., 1992; MA, PhD, Princeton U., 1995, 1996.
Eide, Eric R. (1993) BS, MS, Brigham Young U., 1988, 1989; PhD, U. of California, Santa Barbara, 1993.

Phillips, Kerk L. (1992) BS, Brigham Young U., 1986; MA, PhD, U. of Rochester, 1990, 1991.
Showalter, Mark H. (1991) BA, Brigham Young U., 1986; PhD, Massachusetts Inst. of Technology, 1991.

Assistant Professors
Garner, Phillip D. (2002) BA, Brigham Young U., 1997; PhD, Brown U., 2002.
Lefgren, Lars J. (2001) BA, Brigham Young U., 1996; PhD, U. of Chicago, 2001.
McIntyre, Frank L. (2003) BA, Brigham Young U., 1998; PhD, Stanford U., 2003.
Platt, Brennan C. (2006) BS, Arizona State U., 2001; MA, PhD, U. of Minnesota, 2005, 2006.
Sims, David P. (2004) BS, Brigham Young U., 1999; PhD, Massachusetts Inst. of Technology, 2004.

Adjunct Assistant Professor
Wilson, Sven E. (1997) BA, Brigham Young U., 1989; MA, PhD, U. of Chicago, 1992, 1997.

Emeriti
Clark, Wayne Walter (1962) BA, Brigham Young U., 1952; PhD, Texas A&M U., 1960.
Dutton, Dean S. (1968) BA, U. of Utah, 1964; MA, PhD, Michigan State U., 1966, 1968.
Gardner, B. Delworth (1986) BS, MS, U. of Wyoming, 1952, 1954; PhD, U. of Chicago, 1960.
Infanger, Carlton A. (1964) PhD, Montana State U., 1964.
James, Sydney C. (1983) BS, MS, Utah State U., 1953, 1957; PhD, Oregon State U., 1960.
Nelson, Glen T. (1955) BS, MS, Utah State U., 1942, 1948; PhD, U. of Illinois, 1950.
Park, William Laird (1977) BS, MS, Utah State U., 1957, 1958; PhD, Cornell U., 1963.
Wimmer, Larry T. (1963) BS, Brigham Young U., 1960; MA, PhD, U. of Chicago, 1962, 1968.

Educational Leadership and Foundations

A. LeGrand Richards, Chair
306M MCKB, (801) 422-4291
E-mail: buddy_richards@byu.edu
Internet: http://www.byu.edu/edlf
Fax: (801) 422-0196

Graduate Programs and Degrees

MEd Educational Leadership
PhD Educational Leadership

For more information see the BYU 2007–2008 Graduate Catalog.

Educational Leadership and Foundations (EdLF)

Undergraduate Courses

362. Introduction to Comparative and International Development Education. (3:3:0) F
Methods, major concepts, and current trends in comparative and international develpment education; role of education in promoting national development.

363. Educational and Community Development. (3:3:0) W
Analyzing basic policy in education; community and national development through the perspective of political science, economics, and sociology.

390R. Special Topics in Education. (1–3:Arr.:Arr. ea.) On dem.
Various topics dealing with educational issues.

399R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su Prerequisite: departmental consent.
On-the-job experience and training under the guidance of a mentor.

452. Foundations of Education. (2:2:0) F, W, Sp, Su
Introduction to the philosophical, sociological, and historical foundations of American education, with special reference to current issues in U.S. public schooling.

494R. Independent Readings. (1–3:0:0 ea.) F, W, Sp, Su
Prerequisite: departmental consent.
Readings in education.

495R. Independent Research. (1–3:0:0 ea.) F, W, Sp, Su
Prerequisite: departmental consent.
Student research mentored by faculty member.

500-Level Graduate Courses (available to advanced undergraduates)

515R. Special Topics in Education. (1–3:3:1 ea.) F, W, Su Credit earned in 515R is not counted toward graduate degrees.

530. School and Community Programs in Education. (2:2:0)
Examination of programs in school and community for enhancement of teaching and learning.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Educational Leadership and Foundations Faculty

Professors
Geo-JaJa, MacLeans (2000) BS, Morehead State U., 1976; MS, Indiana State U., 1980; PhD, U. of Utah, 1986.
Hite, Steven (1991) BS, MS, Brigham Young U., 1980, 1982; EdD, Harvard U., 1985.

Holsinger, Donald (1997) BA, Brigham Young U., 1966; MA, MS, U. of Wisconsin, 1967, 1969; PhD, Stanford U., 1972.
Randall, E. Vance (1992) BS, MEd, Brigham Young U., 1975, 1978; PhD, Cornell U., 1989.

Associate Professors
Baugh, Steven C. (2000) BS, MEd, EdD, Brigham Young U., 1969, 1970, 1978.
Ferrin, Scott Ellis (1997) BA, JD, Brigham Young U., 1980, 1984; MEd, EdD, Harvard U., 1989, 1996.
Hallam, Pamela (2006) BS, MA, Brigham Young U., 1979, 1990; EdD, U. of Utah, 2006.
Hilton, Sterling C. (1996) BA, MA, MS, Brigham Young U., 1987, 1990; PhD, John Hopkins U., 1996.
Hite, Julie M. (2000) BS, MOB, Brigham Young U., 1980, 1995; PhD, U. of Utah, 1999.
Matthews, L. Joseph (1998) BA, U. of Wyoming, 1972; MEd, EdD, Brigham Young U., 1978, 1987.
Mayes, Clifford T. (1998) BA, MA, U. of Arizona, 1974, 1981; MA, U. of Oregon, 1979; PhD, U. of Utah, 1997.
Richards, A. LeGrand (1985) BS, PhD, Brigham Young U., 1975, 1982; MEd, Harvard U., 1976.
Williams, Ellen J. (2000) BA, MED, Utah State U., 1966, 1973; EdD, Brigham Young U., 1990.

Assistant Professor
Peterson, Erlend D. (1966) BS, MS, EdD, Brigham Young U., 1967, 1971, 1985.

Adjunct Faculty
Poulsen, Denis (1998) BS, MEd, Brigham Young U., 1967, 1979.
Van Orman, Jan (1999) BA, MA, U. of Utah, 1964, 1970.

Emeriti
Andersen, Dan W. (1980) BS, U. of Utah, 1952; MS, U. of Southern California, 1955; PhD, U. of Wisconsin, Madison, 1961.
Butterfield, Dennie D. (1974) BA, Brigham Young U., 1955; MA, Fresno State Coll., 1962; EdD, U. of California, Los Angeles, 1972.
Christensen, Dean C. (1957) BS, MS, Utah State U., 1938, 1948; EdD, U. of Oregon, 1957.
Flinders, Neil J. (1978) BS, MRE, EdD, Brigham Young U., 1960, 1963, 1968.
Garfield, Rulon Roy (1978) BS, MA, PhD, U. of Utah, 1954, 1956, 1964.
Harms, Callis R. (1960) BS, MEd, Brigham Young U., 1952, 1956; EdD, Arizona State U., 1961.
Heaton, Israel C. (1956) BS, MS, Utah State U., 1940, 1941; EdD, DRE, Indiana U., Bloomington, 1955.
Hungerford, Curtiss R. (1977) BA, Stanford U.; MA, PhD, U. of Southern California, 1956, 1967.
Hyatt, Norman F. (1970) BS, MS, Brigham Young U., 1948, 1949; EdD, U. of Oregon, 1964.
Patterson, Robert S. (1992) BEd, MEd, U. of Alberta, Canada; PhD, Michigan State U., 1968.
Shute, R. Wayne (1974) BS, MEd, Brigham Young U., 1955, 1959; EdD, U. of Southern California, 1964.
Van Alfen, Curtis N. (1967) BS, MS, Utah State U., 1957, 1959; EdD, U. of Utah, 1967.
Webb, Clark D. (1966) BA, MA, Brigham Young U., 1964, 1966; PhD, U. of Texas, Austin, 1970.
Willardson, J. D. (1996) BS, Brigham Young U., 1966; MBA, U. of Utah, 1979; EdD, U. of Southern California, 1987.

Electrical and Computer Engineering

Michael Jensen, Chair
459 CB, (801) 422-4012

Janalyn Mergist, Undergraduate Major Advisor
459 CB (801) 422-4012

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree programs in the Department of Electrical and Computer Engineering carry special enrollment limitations. Please see the department or college advisement center for specific details.

The Discipline

Electrical and computer engineers study phenomena, devices, and systems for information processing, communication, and systems control. These studies, grounded primarily in physics and mathematics, have enabled engineers to develop the innovative new technologies for information acquisition, processing, storage, and communication that have made possible our contemporary Age of Information.

Examples of systems developed by electrical and computer engineers include radio, television, radar, satellite communication systems, cellular telephones, laptop computers, fiber-optic communications devices, global and local computer networks, robotic systems, control systems, fax machines, medical image processing, computer modems, lasers, pagers, computer vision, programmable calculators, VLSI chips, computer-aided design tools, and medical instruments.

Although it is the goal of engineering to produce useful objects, electrical and computer engineers typically play a limited role in construction, assembly, or mass production. Instead, they focus on design, analysis, and the development of the underlying theory and knowledge applied in the design process.

Many engineers are involved in designing and developing products, but other electrical and computer engineers may choose to work in product marketing, project management, system calibration and maintenance, product testing, or other areas related to electronic systems.

Computer programming skills and the ability to use advanced design and simulation software packages are vital in electrical as well as computer engineering. As part of their training, electrical engineers become familiar with a variety of programming languages and software environments. This experience is closely coupled to real-world applications.

Career Opportunities

Electrical and computer engineers are among the most actively recruited students graduating from a four-year program. Baccalaureate engineers typically start their careers as members of project teams with one or more of the following responsibilities: designing digital, analog, or opto-electronic circuits; creating or testing application-specific software; testing components or systems; or providing technical support for sales. Later on, many engineers find themselves pursuing managerial careers, starting their own companies, or even managing entrepreneurial funds. Top graduates are also well received by medical schools, law schools, and professional and management programs.

The BS curriculum for both the electrical engineering and computer engineering degrees is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET).

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Computer Engineering
BS Electrical Engineering

Students should see their college advisement center or department advisor for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Electrical and Computer Engineering
PhD Electrical and Computer Engineering

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Preprofessional Program. All students who declare electrical and computer engineering as a major will be designated preprofessional until they submit an application for acceptance to the professional program (available at the college advisement center, 264 CB) and it has been approved by the department's admissions committee. Preprofessional courses must be completed with a B average GPA. Preprofessional students are not allowed to enroll in electrical and computer engineering professional courses.

The status of students who do not enroll in EC En 212 in the semester in which they are admitted or who do not receive a grade of C– or better in EC En 212 reverts to preprofessional. To continue in the program, a student must reapply to the professional program, be reaccepted, and then retake EC En 212. We encourage such students to seek advisement in planning their course schedules, and to discuss ways to better prepare themselves to be successful when retaking EC En 212.

Academic Standards and Continuance. On gaining acceptance into the professional program, students must maintain a minimum university cumulative grade point average of 2.0. Students are required to pass prerequisite courses in the major with a grade of C– or better before taking follow-on courses.

Professional Registration. The Electrical and Computer Engineering Department provides the option for graduates to become registered professional engineers. General qualifications for becoming registered are explained in the Ira A. Fulton College of Engineering and Technology section of this catalog. This status is vital to engineering practice in the public sector and to much consulting work. The basic electrical and computer engineering program outlined in this department prepares graduates to successfully complete the Fundamentals of Engineering (FE) examination. Students who wish to become registered as professional engineers are advised to discuss this matter with an advisor from the department soon after admission to the professional program.

BS Computer Engineering (91.5–92.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department advisor for information regarding requirements for admission to this major.

Program Objectives

1. Provide instruction in computer engineering by introducing students to the analytical thinking, language, and skills associated with the discipline.
2. Sustain an excellent, nationally recognized, and accredited undergraduate program that prepares graduates to compete with the best in the field; obtain industry employment, engage in technology-based entrepreneurship, or complete further study in postgraduate programs; make fundamental contributions to science and technology; serve in responsible positions of technical leadership; and be examples of faith, character, lifelong learning, service to the community, and high professional ethics as set out in the document Aims of a BYU Education.
3. Provide opportunities to engage in scholarly research or creative design that complement the education obtained through the course work by including design laboratories, a major design experience, and, where practical, participation in funded research projects.
4. Seek and retain faculty who are examples of faith, intellect, and character who instill in students the skills and the desire to continue learning and to serve others throughout their lives.

Major Requirements

1. Complete the following preprofessional program as soon as possible upon entering BYU:
   a. Complete the following (or approved equivalent courses):
      Math 112, 113.
      Phscs 121, 220.
   b. During the semester of completing the above, obtain an application from the college advisement center and apply for professional status. (Contact the department or the college advisement center for additional details.)
2. Complete the following supporting courses (either as a preprofessional or a professional student):
   Chem 105 or 111.
   C S 142, 235, 236, 240.
   EC En 124, 224.
   Engl 312 or 316.
   Math 334, 343.
3. Complete the following professional requirements:
   EC En 212, 313, 317, 320, 324, 370, 380, 391, 490.
4. Complete at least 19 hours from the following advanced program and technical electives:
   a. Complete at least two of the following courses:
      EC En 425, 427, 451.
   b. Complete one of the following options:
      Either EC En 362
      Or EC En 360, 361.
   c. Complete remaining course hours from the following:
      (1) Additional courses listed in item 4a above or other 400-level electrical and computer engineering courses.
      (2) C S 345, 428, 431, 452, 455, 456, 460, 462, 465, 470, 478, 486.
      (3) 500-level computer science courses.

Note: Contact the Electrical and Computer Engineering Department for current information about added and/or deleted courses, as well as information about when courses are offered.

*Hours include courses that may fulfill university core requirements.

BS Electrical Engineering (90.5–91.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department office for information regarding requirements for admission to this major.

Program Objectives

1. Provide instruction in electrical engineering by introducing students to the analytical thinking, language, and skills associated with the discipline.
2. Sustain an excellent, nationally recognized, and accredited undergraduate program that prepares graduates to complete with the best in the field; obtain industry employment, engage in technology-based entrepreneurship, or complete further study in postgraduate programs; make fundamental contributions to science and technology; serve in responsible positions of technical leadership; and be examples of faith, character, lifelong learning, service to the community, and high professional ethics as set out in the document Aims of a BYU Education.
3. Provide opportunities to engage in scholarly research or creative design that complement the education obtained through the course work by including design laboratories, a major design experience, and, where practical, participation in funded research projects.
4. Seek and retain faculty who are examples of faith, intellect, and character who instill in students the skills and the desire to continue learning and to serve others throughout their lives.

Major Requirements

1. Complete the following preprofessional program as soon as possible upon entering BYU:
   a. Complete the following (or approved equivalent courses):
      Math 112, 113.
      Phscs 121, 220.
   b. During the semester of completing the above, obtain an application from the college advisement center and apply for professional status. (Contact the department or the college advisement center for additional details.)
2. Complete the following supporting courses (either as a preprofessional or a professional student):
   Chem 105 or 111.
   C S 142, 235.
   EC En 124, 224.
   Engl 312 or 316.
   Math 214, 334, 343.
   Phscs 281.
3. Complete the following professional requirements:
   EC En 212, 313, 317, 360, 361, 370, 380, 391, 490.
4. Complete at least 19 hours from the following advanced program and technical electives:
   a. Complete four courses from the following:
      Ch En 381.
      EC En 320, 324, 425, 427, 443, 445, 450, 451, 464, 466, 483, 485, 487.
   b. Complete remaining course hours selected from the following:
      (1) Additional courses listed in item 4a above, or other 400-level electrical and computer engineering courses.
      (2) 500-level electrical and computer engineering courses.
      (3) Other engineering, mathematics, physics, or computer science courses as specified or approved by the Electrical and Computer Engineering Department.

Note: Contact the Electrical and Computer Engineering Department for current information about added and/or deleted courses, as well as information about when courses are offered.

*Hours include courses that may fulfill university core requirements.

Electrical and Computer Engineering (EC En)

Undergraduate Courses

124. (EC En-C S) Introduction to Computing Systems. (3:3:2) F, W, Sp, Su Prerequisite: C S 142 or concurrent enrollment.
How a computer works, from hardware to high-level programming: logic circuits, computer instructions, assembly language, binary arithmetic, C programming, program translation, data structures, algorithm analysis.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

212. Circuit Analysis and Laboratory. (5:4:3) F, W, Sp Prerequisite: Phscs 220; Math 113; professional status.
Analysis of electric circuits; sinusoidal-steady state, resonance, Bode plots, and balanced three-phase circuits. Includes labs. To be taken semester of admittance to professional program. Fee.

224. (EC En-C S) Fundamentals of Digital Systems. (3:3:2) F, W, Su Prerequisite: EC En 124.
Digital logic: theory, design, and implementation of combinational and sequential logic. Laboratory experience in construction of digital logic circuits. Fee.

301. Elements of Electrical Engineering. (3:3:1) F, W, Sp Prerequisite: Phscs 220, Math 334.
Linear electrical circuits, computer organization, and logic circuits for nonmajors. Fee.

313. Electronic Circuit Design 1. (4:4:2) F, W, Sp Prerequisite: EC En 212.
Analysis and design of linear and nonlinear electronic circuit building blocks.

317. Electronics Laboratory 1. (1:0:3) F, W, Sp Prerequisite: EC En 313 or concurrent enrollment.
Measurement and design of basic electronic building blocks.

320. Digital System Design. (3:3:3) F, W Prerequisite: EC En 212; EC En–C S 224.
Advanced digital design, including hardware description languages, electrical properties of digital circuits, synchronous and asynchronous circuits, computer arithmetic, and interfacing to external circuitry.

324. (EC En-C S) Computer System Architecture. (3:3:1) F, W, Sp Prerequisite: EC En–C S 224; C S 235.
Performance-directed design principles, advanced pipelining, instruction-level parallelism (superscalar and VLIW CPUs), compiler optimizations, memory hierarchy design, etc.

360. Transmission Lines and Introductory Fields. (4:4:2) F, W Prerequisite: Math 214, 334, EC En 212.
Properties and application of transmission lines. Introduction to electric and magnetic field theory and development of Maxwell's equations.

361. Transmission Lines and Introductory Fields Laboratory. (1:0:3) F, W Prerequisite: EC En 360 or concurrent enrollment.
Experiments and measurement techniques in static and time-varying fields. Transmission line design and measurements. Microwave generation, propagation, detection, and hardware components.

362. Transmission Line Fundamentals for High-Speed Digital Systems. (2:1:3) F, W Prerequisite: EC En 212, Math 334; computer engineering major status.
Transmission lines for high-speed digital systems. Lab.

370. Probability Theory. (3:3:0) F, W Prerequisite: Math 343.
Axiomatic probability theory, conditional probability, discrete/continuous random variables, expectation, conditional expectation, moments, functions of random variables, multivariate distributions, laws of large numbers, central limit theorem.

380. Signals and Systems. (5:4:3) F, W, Sp Prerequisite: EC En 212, Math 334.
Time and frequency domain analysis of discrete or continuous systems subjected to periodic or nonperiodic input signals.

391. Junior Seminar. (0.5:1:0) F Prerequisite: EC En 212.
Seminars and colloquia on current topics in electrical and computer engineering, as well as ethics, contemporary issues, and lifelong learning. Attendance and some writing required.

425. Real-Time Operating Systems. (4:3:3) F Prerequisite: EC En–C S 324.
Hardware/software interface, real-time kernel internals, implementation of high-level language constructs, issues in real-time application software development.

427. Embedded Systems. (4:3:3) F Prerequisite: EC En 320; EC En–C S 324.
Interfacing digital hardware components to an embedded system processor. Developing the hardware-software interface. Developing application software. Using C and assembly language in device-driver design, monitor-debugger, and real-time kernel. Lab.

443. Communication and Power Circuits. (4:3:3) W Prerequisite: EC En 313, 317.
Introduction to amplitude modulation, frequency modulation, and phase modulation circuits. Modulators, mixers, detectors, and the phase-locked loop. Power amplifier stage and oscillator design.

445. Introduction to Mixed-Signal VLSI. (4:3:3) F Prerequisite: EC En 313.
VLSI circuit design emphasizing mixed-signal circuits such as D/A and A/D converters, phase-locked loops, S/H circuits. Associated laboratory provides layout-design experience.

450. Introduction to Semiconductor Devices. (3:3:1) W Prerequisite: EC En 313, Phscs 281.
Physics of electronic and optical solid state devices; includes semiconductor materials, bipolar and FET device physics and modeling, optical properties of semiconductors, and lasers.

451. Introduction to Digital VLSI Circuits. (4:3:5) W Prerequisite: EC En 313, 320.
Design of very large-scale integrated circuits for digital systems. CAD tools used extensively to simulate the design and create and verify mask circuits.

452. Experiments in Integrated Circuit Development. (1:0:3) W Prerequisite: EC En 450 or concurrent enrollment.
Measurements of key silicon properties and fabrication of integrated circuits.

455. VLSI Testing. (1:0:3) F Prerequisite: EC En 451 or 445.
Testing of ICs designed previous semester in EC En 451 or EC En 445. Topics in VLSI-testable circuit designs.

462. Electromagnetic Radiation and Propagation. (2:3:1) F 1st blk. Prerequisite: EC En 360.
Electromagnetic and optical theory including guided wave theory, modes, propagation in materials, radiation analysis, antenna analysis, and aperture diffraction.

464. Wireless Communication Circuits. (2:3:1) F 2nd blk. Prerequisite: EC En 462 or instructor's consent.
Analysis, design, and fabrication of RF/microwave passive circuit structures, amplifiers, oscillators, and mixers. System concepts, including stability, gain, and noise figure.

466. Introduction to Optical Engineering. (2:3:1) F 2nd blk. Prerequisite: EC En 462.
Principles and practices of optical engineering including optical communications system and components.

483. (EC En-Me En 431) Design of Control Systems. (3:3:0) F Prerequisite: EC En 380 or Me En 335.
Classical frequency response and time domain design of control systems. State-variable control and computer simulation of control systems.

485. Introduction to Digital Communication Theory. (4:3:3) F Prerequisite: EC En 370, 380.
Analysis and design of digital communications systems in AWGN: signal space concepts, modulation, matched filter and correlation detection, synchronization, performance. Computer-based design exercises.

487. Introduction to Discrete-Time Signal Processing. (4:3:3) W Prerequisite: EC En 370, 380.
Digital signal processing, fast Fourier transforms, digital filter design, spectrum analysis. Applications in speech processing, SONAR, communications, etc.

490. Team Design Project. (4:2:6) F, W Prerequisite: selected 400-level electrical and computer engineering courses, depending on the specific project.
Culminating design experience based on skills learned in advanced technical courses. Students work in teams to plan, design, test, and demonstrate a major project.

493R. Special Topics in Electrical and Computer Engineering. (1–4:Arr.:Arr. ea.) F, W, Sp, Su
Topics vary. Recent developments in electrical and computer engineering.

500-Level Graduate Courses (available to advanced undergraduates)

522R. Special Topics in Computer Systems. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.

523. Queueing Theory and Modeling Fundamentals. (3:3:0) Prerequisite: EC En 380 or concurrent enrollment; EC En 370 or equivalent.
Computer systems and network modeling using stochastic processes: queueing theory models, performance analysis, resource allocations, large-system response parameters.

541. Active and Passive Filter Design. (3:3:0) Prerequisite: EC En 313, 380; or equivalents.
Design methods for electronic filters based on passive components, active components, and integrated circuit components.

542R. Special Topics in Electronics. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.

543. CMOS Amplifier Design. (3:3:0) Prerequisite: EC En 443 or 445 or equivalent.
Factors affecting performance of MOS devices in analog applications. Design of MOS amplifiers, buffers, and comparators.

548. Analog CMOS Circuit Design. (3:3:0) Prerequisite: EC En 443 or 445 or equivalent.
Design of CMOS comparators, wideband amplifiers, bandgap references; multipliers, PTAT generators, charge-transfer amplifiers, chopper-stabilized amplifiers, and advanced D/A and A/D CMOS architectures.

549. VLSI Communication Circuit Design. (3:3:0) Prerequisite: EC En 443 or 445 or equivalent.
Frequency synthesizers; low-jitter, voltage-controlled oscillators; high Q circuits; clock regeneration; phase-locked loops; frequency discriminators; and radio-on-a-chip concepts.

550. (EC En–Me En) Microelectromechanical Systems (MEMS). (3:3:0) Prerequisite: EC En 450 or Me En 372 or equivalent.
Design, fabrication, and applications of MEMS. Mechanical properties governing their design and reliability and the processing technologies used to fabricate them.

555. Optoelectronic Devices. (3:2:1) F Prerequisite: EC En 450 or equivalent or instructor's consent.
Design, operation, and fabrication of modern optoelectronic devices, including photodiodes, photovoltaics, LEDs, and lasers.

560. Electromagnetic Wave Theory. (3:3:0) Prerequisite: EC En 462 or equivalent.

Principles and methods of modern electromagnetic wave theory: anisotropic media, dyadic green functions, Nuygen's principle, contour integration methods, asymptotic integration. Applications in radiation and scattering.

562. Optical Communication Components and Systems. (3:3:0) Prerequisite: EC En 462, 466; or equivalents.

Fiber-optic communication system components and their operating and performance characteristics.

563. Applied Computational Electromagnetics. (3:3:0) Prerequisite: EC En 462 or equivalent.

Current theory and practice in numerically solving Maxwell's equations for antenna and circuit design and radar-scattering prediction.

564. Radar and Communication Systems. (3:3:0) Prerequisite: EC En 462, 485; or equivalents.

Design and performance of radar and communication systems: radar equation ambiguity functions, modulation, signal detection, link budgets, spread spectrum, system design, and performance trade-offs.

568. Microwave Remote Sensing. (3:3:0) Prerequisite: instructor's consent.

Emphasis on space-borne remote sensing of the earth's atmosphere, land, and oceans. Primary methods and applications for both active (radar) and passive (radiometry).

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Electrical and Computer Engineering Faculty

Professors

Christiansen, Richard W. (1978) BS, Rutgers U., 1961; MS, U. of New Mexico, 1966; PhD, U. of Utah, 1976.
Comer, David J. (1981) BSEE, San Jose State U., 1961; MSEE, U. of California, Berkeley, 1962; PhD, Washington State U., 1966.
Comer, Donald T. (1995) BS, San Jose State U., 1959; MS, U. of California, Berkeley, 1961; PhD, U. of California, Santa Clara, 1968.
Hutchings, Brad (1992) BS, MS, PhD, U. of Utah, 1984, 1987, 1992.
Jensen, Michael (1994) BS, MS, Brigham Young U., 1990, 1991; PhD, U. of California, Los Angeles, 1994.
Long, David G. (1990) BS, MS, Brigham Young U., 1982, 1983; PhD, U. of Southern California, 1989.
Nelson, Brent E. (1984) BS, MS, PhD, U. of Utah, 1981, 1983, 1984.
Nordin, Gregory P. (2005) BS, Brigham Young U., 1984; MS, U. of California, Los Angeles, 1986; PhD, U. of Southern California, 1992.
Rice, Michael D. (1991) BS, Louisiana Tech U., 1987; MS, PhD, Georgia Inst. of Technology, 1989, 1991.
Selfridge, Richard H. (1987) BS, California State U., Sacramento, 1978; MS, PhD, U. of California, Davis, 1980, 1984.
Stirling, Wynn C. (1984) BS, MS, U. of Utah, 1969, 1971; PhD, Stanford U., 1983.
Swindlehurst, A. Lee (1990) BS, MS, Brigham Young U., 1985, 1986; PhD, Stanford U., 1991.

Associate Professors

Archibald, James K. (1987) BS, Brigham Young U., 1981; MS, PhD, U. of Washington, 1983, 1987.
Beard, Randal W. (1996) BS, U. of Utah, 1991; MS, PhD, Rensselaer Polytechnic Inst., 1993, 1995.
Frost, Richard L. (1987) BS, MS, PhD, U. of Utah, 1975, 1977, 1979.
Hawkins, Aaron R. (2002) BS, California Inst. of Technology, 1994; MS, PhD, U. of California, Santa Barbara, 1996, 1998.
Jeffs, Brian D. (1990) BS, MS, Brigham Young U., 1978, 1982; PhD, U. of Southern California, 1989.
Lee, Dah-Jye (2001) BS, National Taiwan U. of Science and Technology, 1984; MS, PhD, Texas Technological U., 1987, 1990.
Warnick, Karl F. (2000) BS, PhD, Brigham Young U., 1994, 1997.
Wilde, Doran (1995) BS, Brigham Young U., 1978; MS, PhD, Oregon State U., 1993, 1995.
Wirthlin, Michael J. (1999) BS, PhD, Brigham Young U., 1992, 1997.

Assistant Professors

Oliphant, Travis (2001) BS, MS, Brigham Young U., 1995, 1996; PhD, Mayo Graduate School, 2000.
Penry, David A. (2006) BSE, MS, Case Western Reserve U., 1992, 1992; MBA, Ohio State U., 1994; MA, PhD, Princeton U., 2002, 2006.
Schultz, Stephen M. (2002) BS, MS, Brigham Young U., 1992, 1994; PhD, Georgia Inst. of Technology, 1999.
Taylor, Clark N. (2004) BS, MS, Brigham Young U., 1995, 1999; PhD, U. of California, San Diego, 2004.

Emeriti

Bearnson, Leroy W. (1972) BS, U. of Utah, 1961; MS, Syracuse U., 1965; PhD, Auburn U., 1970.
Berrett, Paul O. (1964) BS, U. of Utah, 1953; MS, U. of Southern California, 1955; PhD, U. of Utah, 1965.
Bowman, Lawrence S. (1967) BS, MS, PhD, U. of Utah, 1957, 1961, 1964.
Chabries, Douglas M. (1978) BS, U. of Utah, 1966; MS, California Inst. of Technology, 1967; PhD, Brown U., 1970.
Chaston, A. Norton (1957) AS, U. of Idaho, 1944; BS, U. of Utah, 1951; MS, Brigham Young U., 1963.
Clegg, John C. (1961) BS, MS, PhD, U. of Utah, 1949, 1954, 1957.
Humpherys, Deverl S. (1964) BS, Brigham Young U., 1955; MS, U. of Utah, 1957; PhD, U. of Illinois, 1963.
Jonsson, Jens J. (1953) BS, BS, U. of Utah, 1944, 1947; MS, PhD, Purdue U., 1948, 1951.
Losee, Ferril A. (1965) BS, U. of Utah, 1953; MS, U. of Southern California, 1957.
Miner, Gayle F. (1960) BS, MS, U. of Utah, 1959, 1960; PhD, U. of California, Berkeley, 1969.
Ward, David M. (1964) BS, Stanford U., 1959.

Elementary Education

See Teacher Education.

Engineering and Technology Education

Alan R. Parkinson, Dean
270 CB, (801) 422-4327

Engineering and Technology Education Courses (Eng T)

200. Global Technology Issues. (3:3:0) F
Interaction between the global society and technology. Global policy issues dealing with supply and demand of key commodities, economics, environment, population, and food and water resources.

295R. Engineering Math Refresher. (0:3:0) F on blk., W on blk.
Review of basic techniques of algebra, trigonometry, differential calculus, integral calculus, and series and sequences in preparation for engineering mathematics, ordinary differential equations, and multivariable calculus.

498. International Project. (0.5:0.5:0) F, W
Report of a senior project that demonstrates comprehension of the international dimensions of the student's major.

500-Level Graduate Courses (available to advanced undergraduates)

502. Advanced Applied Engineering Math 1. (3:3:0) F
Prerequisite: Math–Eng T 302, 303; or equivalents.
Topics in modern engineering mathematics, including applications of differential and integral equations and vector spaces.

503. Advanced Applied Engineering Math 2. (3:3:0) W
Prerequisite: Eng T 502 or equivalent.
Topics in modern engineering mathematics, including applications of partial differential and integral equations and numerical analysis.

595R. Special Topics in Engineering and Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su
Special topics in engineering and technology that relate to current research areas or issues related to industry.

English

Edward Smith Cutler, Chair
4198A JFSB, (801) 422–4938

Brett C. McInelly, Coordinator, English Composition
4110C JFSB, (801) 422–3565

College of Humanities Advisement Center
1175 JFSB, (801) 422–4789

Admission to Degree Program

All degree programs in the Department of English are open enrollment. However, special enrollment limitations apply for teaching majors.

The Discipline

The English major provides a detailed knowledge of the English language and of literature written in English. English majors approach language and literature as a source of knowledge and aesthetic pleasure, a mode of encountering and evaluating diverse minds and attitudes, a vehicle for art and action, a means of historical understanding, and a source of spiritual insight. English majors use writing as their primary means (1) of knowing, understanding, and evaluating their experience and their reading and (2) of sharing their insight with others. In keeping with the long-standing ideals of a liberal arts education, the English Department aims to cultivate in its students those foundational skills in writing, awareness, and judgment upon which lives of wisdom, service, and an ever-increasing love for learning might be built.

Career Opportunities

With a firm grounding in the liberal arts, English majors are prepared for any career that requires perceptive reading, orderly and clear thinking, intellectual maturity, and effective writing. Many career opportunities for English majors exist in teaching, professional writing and editing, law, business, communications, or government service. English majors can certify to teach secondary-school English, or they can prepare for graduate study in English and college teaching. When combined with prerequisite courses in other departments, the English major provides excellent preparation for graduate work in law, business, library science, medicine, humanities, or religion. By selecting areas of concentration, some English majors prepare for careers in technical and professional communication, editing, creative writing, and related fields. By supplementing their English major with computer classes, some find work in information technology. The skills and knowledge acquired by an English major also provide good preparation for government service, especially when combined with the study of foreign languages, economics, political science, and history.

General Information

The Department of English strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	English
BA	English Teaching
Minors	English
	English Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA English

For more information see the BYU 2007–2008 Graduate Catalog.

BA English (48–65 hours)

Major Requirements

1. Students must complete the GE Foreign Language option even if the Advanced Mathematics option has already been completed.
2. At least 21 hours of English major course work must be completed in residence at BYU.
3. Engl 195 is recommended.
4. Because upper-division English courses require substantial writing, it is strongly recommended that students complete their Advanced Written and Oral Communication requirement as they begin their first upper-division courses, preferably in the second semester of their sophomore year.
5. No more than 3 hours of any one R course may apply toward the hours required for the major.
6. Complete the following core courses:
   a. Freshman college-level writing; choose one course, or the equivalent, from the following:
      Engl 150.
      Honrs 150.
      Phil 150.

      Note: Waivers based on the AP or other test scores do not apply to this requirement.

   b. Fundamentals of language and literature:
      Engl 251 or 252.

      Note: Students must complete Engl 251 or 252 before taking any 300-level courses.

   c. British and American literary history:
      Engl 291, 292, 293.

      Note: Students must complete the literary history course in a period before taking any 300-level courses in that period.
7. Complete the following:
   Engl 382.
8. Complete one course from two of the following three areas:
   a. Early British Literature:
      Engl 300R**, 341, 371, 372, 373, 381, 383, 384R**, 385.

      Note: Students must complete Engl 291 before taking courses in this area.

   b. Later British Literature:
      Engl 300R**, 333, 343**, 374, 375, 376, 380, 384R**.

      Note: Students must complete Engl 292 before taking courses in this area.

   c. American Literature:
      Engl 336, 343**, 360R, 361, 362, 363, 365, 384R**.

      Note: Students must complete Engl 293 before taking courses in this area.

   **Note: Three hours of Engl 300R may count toward either early or later British literature. Three hours of Engl 384R may count toward one of these three areas according to the period of the major author studied. Engl 343 may count toward either later British or American literature, according to the course content.
9. Rhetoric, Professional Communication, and Theory: complete one course from the following:
   Engl 415R, 418, 426, 427, 428R, 451, 452.
10. Diverse Traditions and Methods: complete one course from the following:
    ELang 468.
    Engl 337R, 345, 350, 355, 356, 358R, 364, 368, 391, 392, 396.
11. Complete the following:
    Engl 495.

    Note: Students should take this course their senior year, after taking Advanced Written and Oral Communication.
12. Complete 12 elective hours from any 300- or 400-level English courses, **except:**
    a. Any English course used to fulfill the GE Advanced Written and Oral Communications requirement.
    b. English education courses (Engl 329, 377, 378, 379, 423, 479).

    The following may also be counted toward the elective hours:
    a. Three hours of Engl 218R.
    b. Three hours of Honrs 203R or 303R.
    c. One course from the following ELang courses:
       ELang 322, 324, 325, 350, 410R, 430R.

Note: Some English majors choose to minor in editing, which is offered by the Department of Linguistics and English Language.

Note: Some English majors choose to focus on special areas of concentration within the major itself, such as:

Creative Writing
Engl 218R, 317R, 318R, 319R, 320R, 419R, 518R.

Professional Writing
Engl 316, 399R, 415R, 418.

Folklore, Ethnic, and Regional Literature
Engl 356, 358R, 364, 368, 391, 392, 393R.

Rhetoric and Academic Writing
Engl 399R, 426, 427, 428R.

Preparation for Graduate Studies in English
Engl 451 or 452.

BA English Teaching (74–91 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see item 1 below for information regarding admission to this program.

Major Requirements

1. This is a closed major requiring application to the program. Application forms are available in the Humanities Advisement Center (1175 JFSB) and the English Education Office (4168 JFSB). Students cannot apply until they have completed at least 9 hours of English major core courses.
2. Students must complete the GE Foreign Language option even if the Advanced Mathematics option has already been completed.
3. At least 24 hours of English major course work must be completed in residence at BYU.
4. Engl 195 is recommended.
5. Upper-division English courses require substantial writing. Students should plan to complete their Advanced Written and Oral Communication requirement as they begin their first upper-division courses, usually at the beginning of the junior year.
6. A teaching minor is not required for licensure. However, it is strongly recommended.
7. Sc Ed 276R is prerequisite to Engl 329, 377, 378, and 423 (377 and 378 may be taken concurrently). Engl 377 and 378 are prerequisite to Sc Ed 476R.
8. Complete the following core courses:
   a. Because English is a writing-intensive major, students are *required* to take a first-year freshman college-level writing course. Choose one course, or the equivalent, from the following:
      Engl 150.
      Honrs 150.
      Phil 150.

      Note: Waivers based on the AP or other test scores do not apply to this requirement. One of the courses must be taken.

   b. Fundamentals of language and literature:
      Engl 251 or 252.

      Note: Students must complete Engl 251 or 252 before taking any 300-level courses.

   c. British and American literary history:
      Engl 291, 292, 293.

      Note: Students must complete the literary history course in a period before taking any 300-level courses in that period.
9. Complete two courses from the following:
   Engl 361, 362, 363, 365.
10. Complete one course from the following:
    Engl 345, 356, 358R, 359, 366 (356 is recommended).
11. Complete the following:
    Engl 329, 377, 378, 379, 382, 420, 423, 479, 495.
12. Complete the Professional Education Component:
    a. Complete the following:
       CPSE 402.
       IP&T 286.
       Sc Ed 276R, 350, 353, 379.

       Note: Fingerprinting and FBI clearance must be completed before registration for Sc Ed 276R.

    b. Complete 12 hours from one of the following:
       Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor English (18 hours)

Minor Requirements

1. At least 9 hours must be taken in residence at BYU.
2. Complete the following prerequisite courses:
   Engl 251 or 252.
3. Complete 15 elective hours of English courses from 218R and higher. At least 9 hours must be 300-level or higher.

Minor English Teaching (27 hours)

Minor Requirements

1. At least 12 minor hours must be completed in residence at BYU.
2. Complete one of the following prerequisite courses:
   Engl 251 or 252.
3. Complete the following:
   Engl 232, 292, 293, 329, 377, 378, 420, 423.

English (Engl)

Undergraduate Courses

115. College Writing and Reading. (3:3:0) Independent Study only.
Principles of expository writing and critical reading with an emphasis on library-based research. Fulfills GE First- Year Writing requirement.

150. Writing and Rhetoric. (3:3:0) F, W, Sp, Su Honors also.
Processes of writing, reading, and research with an emphasis on argumentation and rhetorical analysis. Fulfills GE First-Year Writing requirement.

195. Introduction to the English Major. (1:1:0)
Overview of the English major for the beginning student: curriculum, faculty, career options. Grading based chiefly on attendance.

201. Masterpieces of World Literature 1. (3:3:0) Honors also.
Major world civilizations from antiquity through the early Italian Renaissance, approached through literature and emphasizing socioeconomic, religious, political, intellectual, and aesthetic developments.

202. Masterpieces of World Literature 2. (3:3:0) Honors also. Prerequisite: Engl 201.
Major world civilizations from Europe's High Renaissance to modern times, approached through literature and emphasizing socioeconomic, religious, political, intellectual, and aesthetic developments.

218R. Creative Writing. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 150 or equivalent.
Individual sections dealing with poetry, personal essays, drama, fiction, or science fiction, or combinations of these.

220. Composing Personal History. (3:3:0) Independent Study also.
Composing personal history through writing, mementos, oral history, chronologies, letters, documents, journals, and other mediums.

230. Introduction to Literature: Fiction, Drama, Poetry. (3:3:0) Independent Study also.
Introduction to various literary themes, forms, and authors. Does not fulfill English major requirements.

232. Shakespeare. (3:3:0) Independent Study also.
Careful reading and discussion of six to eight major plays. Does not fulfill English major requirements.

235. Masterpieces of American Literature. (3:3:0) Independent Study also.
Selected readings from Puritan times to the present.

236. Masterpieces of English Literature. (3:3:0) Independent Study also.
Selected readings from medieval times to the present.

251. Fundamentals of Literary Interpretation and Criticism. (3:3:0) Independent Study also. Prerequisite: Engl 150 or equivalent.
Introduction to concepts and practice of literary analysis; critical theories; and elements of fiction, poetry, and drama.

252. Introduction to Literary Theory and Criticism. (3:3:0) Prerequisite: Engl 150 or equivalent, a 5 on the English AP exam, Engl 251, or instructor's consent.
Selected primary texts representing three different critical approaches; practice in reading and writing applied criticism; library research paper.

268. Literature of the Latter-day Saints. (3:3:0)
Fiction, poetry, drama, folklore, essay, etc., emerging from and reflecting upon the LDS experience from Joseph Smith to the present.

291. British Literary History 1. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252 or concurrent enrollment.
Development of ideas, movements, genres, and styles in early English literature as illustrated through representative texts.

292. British Literary History 2. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252 or concurrent enrollment.
Development of ideas, movements, genres, and styles in later English literature as illustrated through representative texts.

293. American Literary History. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252 or concurrent enrollment.
Development of ideas, movements, genres, and styles in American literature as illustrated through representative texts.

300R. English Literature in a Cultural Setting. (1–6:Arr.:Arr. ea.) For Study Abroad students only.

305. Critical Reading. (3:3:0)
Multidisciplinary approaches to literacy. Strategies and contexts for critical reading and thinking.

306. Travel Writing. (1–3:3:0) For Study Abroad or Travel Study students only. F, W, Sp
Theory and practice of writing about travel experience.

311. Writing About the Arts and Humanities. (3:3:0) Honors also. Prerequisite: Engl 150 or equivalent; junior or senior status.
Writing for both academic and mass audiences about the functions, meanings, values, and qualities of art and the humanities. Library research paper. Carries GE Advanced Written and Oral Communication credit.

312. Persuasive Writing. (3:3:0) Honors also. Prerequisite: Engl 150 or equivalent; junior or senior status.
Expository and persuasive writing focusing on practical reasons for evaluating audiences, generating and structuring an argument, and making stylistic decisions. Library research paper. Carries GE Advanced Written and Oral Communication credit.

313. Expository Writing for Elementary Education Majors. (3:3:0) Independent Study also. Prerequisite: Engl 150 or equivalent; MFHD 322; junior or senior status.
Learning to write as professional educators and to teach writing to children. Best taken before the professional sequence. Library research paper. Carries GE Advanced Written and Oral Communication credit.

314. Writing About Literature. (3:3:0) Independent Study also. Prerequisite: Engl 150 or equivalent.
Writing about the functions, meanings, qualities, and contexts of literature for specialist and nonspecialist audiences using selected critical theories. Research paper. Primarily for majors in literary studies. Carries GE Advanced Written and Oral Communication credit.

315. Writing in the Social Sciences. (3:3:0) Honors also. Prerequisite: Engl 150 or equivalent; junior or senior status.
Writing characteristic of disciplines that inquire into human behavior and institutions; correspondence, proposals, library paper, empirical research, and reviews. Carries GE Advanced Written and Oral Communication credit.

316. Technical Communication. (3:3:0) F, W, Sp, Su Honors also. Prerequisite: Engl 150 or equivalent; junior or senior status.
Effective processes of written, oral, and visual technical communication, including collaborative processes. Writing for academic and professional audiences. Carries GE Advanced Written and Oral Communication credit.

317R. Writing Creative Nonfiction. (3:3:0 ea.) On dem. Prerequisite: Engl 218 or instructor's consent.
Creations of style and technique in prose nonfiction; discipline and practice of the writer.

318R. Writing Fiction. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R or instructor's consent.
Creation of style and technique in prose fiction; discipline and practice of the writer.

319R. Writing Poetry. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R or instructor's consent.
Creation of style and technique in poetry; discipline and practice of the poet.

320R. Writing for Children and Adolescents. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 218R.
Theory and practice of writing prose and verse for youth readership. Specific attention to requirements of picture books, middle-grade novels, and young adult stories.

321R. English Department Reading Series. (1:1:0 ea.) F, W
Weekly readings of poetry, essays, and fiction by distinguished creative writers.

329. Teaching Grammar and Usage in Secondary Schools. (3:3:0) Prerequisite: Sc Ed 276R.
Language issues, particularly grammar, usage, and pedagogy, for students preparing to teach English at the secondary level.

333. The English Novel. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252; 292.
Novels selected according to time period or theme from the past three centuries.

336. The American Novel. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252.
Representative novels of the American tradition from the late eighteenth century to the present.

337R. Contemporary Literature. (3:3:0 ea.) Prerequisite: Engl 251 or 252.
Trends, techniques, and themes in fiction, drama, or poetry since the 1950s.

341. English Drama: Beginnings to 1800, Excluding Shakespeare. (3:3:0) Prerequisite: Engl 251 or 252; 291.
Selected plays from medieval, Tudor, Stuart, Restoration, and 18th-century drama.

343. Modern English and American Drama. (3:3:0) Prerequisite: Engl 251 or 252.

345. Literature and Film. (3:3:0) Prerequisite: Engl 251 or 252.
Emphasis on film as an interpretation of texts.

350. The Bible as Literature. (3:3:0) Independent Study also.
Literary artistry, human values, and cultural significance of the Bible.

355. (Engl-Cl Cv) Greek and Roman Classics and the English Tradition. (3:3:0)
Major works by such authors as Homer, the Greek and Roman tragedians, Thucydides, Vergil, and Petronius in English translation, emphasizing their influence on English and American literature.

356. Myth, Legend, and Folktales. (3:3:0) Prerequisite: Engl 251 or 252.
Major mythic and legendary works that provide background for the literary tradition.

358R. Ethnic, Regional, and Other Literatures in English. (3:3:0 ea.) Prerequisite: Engl 251 or 252.
Sections stressing Native American, African American, Chicano, third-world, regional, or other literatures in English.

359. The Short Story. (3:3:0) Independent Study also.
Critical study of American, English, and European short stories, emphasizing those of the twentieth century.

360R. American Literature in a Cultural Setting. (3:3:0 ea.) Prerequisite: admission to Semester in Nauvoo Program—Joseph Smith Academy. Offered at Nauvoo Center only.
American literature emphasizing writers and works related to the period and region of the early decades of LDS Church history.

361. American Literature to the Mid–Nineteenth Century. (3:3:0) Prerequisite: Engl 251 or 252; 293.
Major and selected minor writers and literary trends from Puritanism through transcendentalism.

362. American Literature from the Late Nineteenth to the Early Twentieth Century. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252; 293.
Major and selected minor writers and literary trends from the late nineteenth century through naturalism.

363. American Literature from the Early to Mid–Twentieth Century. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252; 293.
Major and selected minor writers and literary trends from the first half of the twentieth century through modernism.

364. Literature of the American West. (3:3:0) Prerequisite: Engl 251 or 252.
Literature protraying the West and the frontier.

365. American Literature from the Mid–Twentieth Century to Present. (3:3:0) Prerequisite: Engl 251 or 252; 293.
Selected writers and literary trends, including postmodernism, from the mid–twentieth century to the present.

366. Studies in Poetry. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252.
Topics vary.

368. Literature of the Latter-day Saints. (3:3:0) Prerequisite: Engl 251 or 252.
Fiction, poetry, drama, folklore, personal essay, and other literature emerging from the LDS experience and expressing various perspectives on it.

371. English Literature to 1500: The Medieval Period. (3:3:0) Prerequisite: Engl 251 or 252; 291.
Principal works, mainly in translation, from Old and Middle English literature.

372. English Literature from 1500 to 1603: The Early Renaissance Period. (3:3:0) Prerequisite: Engl 251 or 252; 291.
English drama, poetry, and prose of the Tudor period.

373. English Literature from 1660 to 1780. (3:3:0) Prerequisite: Engl 251 or 252; 291.
Poetry, prose, and drama of the late seventeenth and eighteenth century, including major figures such as Dryden, Swift, Pope, Fielding, Johnson, and popular female writers.

374. English Literature from 1780 to 1832: The Romantic Period. (3:3:0) Independent Study also. Prerequiiste: Engl 251 or 252; 292.
Includes writings of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries.

375. English Literature from 1832 to 1890: The Victorian Period. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252; 292.
Includes writings of Carlyle, Tennyson, the Brownings, Arnold, Dickens, Eliot, the Rossettis, Hopkins, and their contemporaries.

376. English Literature from 1890 to 1950: The Modern Period. (3:3:0) Prerequisite: Engl 251 or 252; 292.
Aspects of modernism from the aesthetic movement to the end of World War II, including the writings of Hardy, Shaw, Yeats, Conrad, Lawrence, Woolf, Joyce, Eliot, and their contemporaries.

377. Teaching English in Secondary Schools. (3:3:0) Prerequisite: Sc Ed 276R; concurrent enrollment in Engl 379.
Theories and methods of teaching English and language arts to secondary school students. Required before student teaching.

378. Teaching Reading in Secondary Schools. (3:3:0) Prerequisite: Sc Ed 276R.
Theories and methods of teaching reading and reading skills to secondary students. Required before student teaching.

379. Practicum in Secondary English Teaching. (1:0:2) F, W Prerequisite: Sc Ed 276R; concurrent enrollment in Engl 377.
Applying content and methods learned in Engl 377 in a school classroom.

380. English Literature from 1950 to the Present: The Contemporary Period. (3:3:0) Prerequisite: Engl 251 or 252; 292.
Important literature and literary trends since 1950.

381. Chaucer. (3:3:0) Prerequisite: Engl 251 or 252; 291.
Intensive study of Chaucer's literature and language from medieval and modern perspectives.

382. Shakespeare. (3:3:0) For English majors and minors. Independent Study also. Prerequisite: Engl 251 or 252; 291.
Intensive reading, discussion, and (in some sections) viewing of plays from the comedy, tragedy, romance, and history genres.

383. Milton. (3:3:0) Prerequisite: Engl 251 or 252; 291.
Analysis of poetry and selected prose, including detailed study of *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*.

384R. Major Authors. (3:3:0) Prerequisite: Engl 251 or 252.
Topics vary.

385. English Literature 1603–1660: The Late Renaissance Period. (3:3:0) Prerequisite: Engl 251 or 252; 291.
English drama, poetry, and prose of the Stuart period.

391. Introduction to Folklore. (3:3:0)
Major types of folklore (e.g., myth, legend, folktale, folksong, custom, and belief); practical experience in collecting folklore.

392. American Folklore. (3:3:0)
American folk art and literature and the historical and cultural circumstances from which they developed.

393R. Studies in Folklore. (3:3:0) Prerequisite: Engl 391.
Focused themes and topics in folklore. Topics may include regional or transnational folklore, folklore genres, folk groups, ethnographic research, cross-disciplinary issues, and history of folklore studies.

395R. Studies in Literature. (3:3:0 ea.) Independent Study also. Prerequisite: Engl 251.
Topics vary.

396. Studies in Women's Literature. (3:3:0)
Female-authored literary texts and literary theory concerning women. A core class for the women's studies minor.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: consent of cooperative education coordinator.
On-the-job training.

415R. Introduction to Professional Communication. (3:3:0 ea.) Prerequisite: a GE Advanced Written and Oral Communication course.
Developing proficiency in professional communication through rhetorical analysis, project management, and producing professional documents. Emphasis may vary with instructors.

418. Visual Rhetoric and Document Design. (3:3:0) Prerequisite: a GE Advanced Written and Oral Communication course.
Using a rhetorical perspective to design, produce, and analyze visual documents and arguments in various media.

419R. Creative Writing Projects. (3:3:0 ea.) Prerequisite: Engl 318R, 319R, or 320R.
Individual major creative writing projects: novel, novella, play, poetry collection, short stories, or essays.

420. Literature for Adolescents. (3:3:0) Independent Study also. Prerequisite: Engl 251 or 252.
Wide range of literature written for or read by teenagers.

423. Teaching Composition in Secondary Schools. (3:3:0) Prerequisite: Sc Ed 276R.
Theories and methods of teaching writing to secondary school students. Required for all English teaching majors and minors.

426. History of Rhetoric. (3:3:0)
Historical traditions of rhetorical theory and practice, emphasizing Greek and Roman traditions.

427. Rhetorical Theory and Criticism. (3:3:0)
Theories of rhetoric and their use in interpreting and evaluating rhetorical acts and artifacts, including literature, with an emphasis on contemporary rhetorical theory.

428R. Studies in Rhetoric and Composition. (3:3:0)
Topics vary.

451. Literary Theory and Criticism 1: The Critical Tradition. (3:3:0) Prerequisite: Engl 251 or 252.
Historical survey from Plato to the early twentieth century.

452. Literary Theory and Criticism 2: Contemporary Criticism. (3:3:0) Prerequisite: Engl 251 or 252.
Introduction to issues in twentieth-century literary criticism.

479. Secondary Student Teaching Seminar. (1:1:0) Prerequisite: Engl 377, 378.
Issues experienced during secondary student teaching practicum.

480R. Directed Research in English. (1–3:0:0 ea.) F, W, Sp, Su Prerequisite: department chair's consent.
Directed research for ORCA grant recipients, research assistants, and other undergraduate students pursuing research projects.

490R. Individual Readings in English. (1–3:0:0 ea.) Prerequisite: department chair's consent.
Language and/or literature beyond what is offered in the curriculum. May not be substituted for another catalog course.

495. The Senior Course. (3:3:0 ea.) Prerequisite: senior status; English major status.
In-depth study of a limited area of literature, language, or criticism. Content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)
Does not count toward English major electives.

500-Level Graduate Courses (available to advanced undergraduates)

515R. Advanced Scholarly Writing. (3:3:0 ea.)
Workshop for potential graduate students, graduate students, and professionals in all disciplines in preparing the thesis, dissertation, book chapter, and article.

516. Advanced Technical Writing. (3:3:0) Prerequisite: Engl 316 or instructor's consent.
Advanced concepts, including literature of technical writing, liaison with technical staff, communication networks, rhetoric of graphics, and teaching and freelancing technical writing.

517R. Creative Nonfiction Workshop. (3:3:0 ea.) Prerequisite: Engl 317R or 318R; Engl 419R; or instructor's consent.
Writing creative nonfiction. Individual consideration of manuscripts.

518R. Fiction Workshop. (3:3:0 ea.) Prerequisite: Engl 318R or 319R; Engl 419R; or instructor's consent.
Writing fiction. Individual consideration of manuscripts.

519R. Poetry Workshop. (3:3:0 ea.) Prerequisite: Engl 319R, 419R; or instructor's consent.
Writing poetry. Individual consideration of manuscripts.

520R. Studies in Theme and Form. (1–3:3:0 ea.)
Topics vary: literature and film, myth and archetype, science fiction, etc.

521R. Workshop in Writing for Children and Adolescents. (3:3:0 ea.) Prerequisite: Engl 320R, 419R; or instructor's consent.
Writing for young readers. Individual consideration of manuscripts.

590R. Directed Readings. (1–3:Arr.:0 ea.) Prerequisite: graduate advisory committee approval.
Individual readings beyond what is offered in the curriculum. Primarily available for English graduate students in Study Abroad programs.

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department chair's consent.
On-the-job training.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

English Faculty

Professors

Clark, Gregory (1985) BA, MA, Brigham Young U., 1972, 1977; PhD, Rensselaer Polytechnic Inst., 1985.
Crisler, Jesse S. (1993) BA, Trinity U., 1969; PhD, U. of South Carolina, 1973.
Cronin, Gloria L. (1984) BA, Canterbury U., New Zealand, 1968; MA, PhD, Brigham Young U., 1976, 1980.
Crowe, Christopher E. (1993) BA, Brigham Young U., 1976; MEd, EdD, Arizona State U., 1980, 1986.
Fox, Charles Jay (1980) BA, MA, Brigham Young U., 1965, 1967; PhD, Purdue U., 1971.
Hansen, Kristine (1987) BA, MA, Brigham Young U., 1973, 1981; PhD, U. of Texas, Austin, 1987.
Harris, Claudia W. (1980) BA, U. of Minnesota, 1970; MEd, Georgia State U., 1975, 1978; PhD, Emory U., 1990.
Larsen, Lance E. (1993) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Houston, 1993.
Paxman, David B. (1988) BA, Brigham Young U., 1971; MA, PhD, U. of Chicago, 1972, 1982.
Tanner, John S. (1982) BA, Brigham Young U., 1974; PhD, U. of California, Berkeley, 1980.
Thayer, Douglas H. (1957) BA, Brigham Young U., 1955; MA, Stanford U., 1959; MFA, U. of Iowa, 1962.
Walker, Steven C. (1966) BS, MA, Brigham Young U., 1965, 1966; PhD, Harvard U., 1973.

Associate Professors

Baker, Roger G. (1999) BS, Brigham Young U., 1967; MS, U. of Utah, 1970; EdD, Brigham Young U., 1977.
Bennion, John S. (1989) BA, Utah State U., 1977; MA, Brigham Young U., 1981; PhD, U. of Houston, 1989.
Boswell, Grant M. (1984) BA, Brigham Young U., 1976; MA, PhD, U. of Southern California, 1982, 1985.

Cutchins, Dennis R. (1997) BA, MA, Brigham Young U., 1990, 1992; PhD, Florida State U., 1997.
Cutler, Edward S. (1996) BA, MA, Brigham Young U., 1990, 1992; PhD, U. of California, San Diego, 1997.
Dean, Deborah (1999) BA, Brigham Young U., 1988; MEd, City U., New York, 1994; EdD, Seattle Pacific U., 1999.
Duerden, Richard Y. (1988) BA, MA, Brigham Young U., 1979, 1981; PhD, U. of Chicago, 1989.
Eliason, Eric A. (1997) BA, Brigham Young U., 1992; MA, PhD, U. of Texas, Austin, 1994, 1997.
Hatch, Gary L. (1992) BA, Brigham Young U., 1988; PhD, Arizona State U., 1992.
Howe, Susan (1988); BA, Brigham Young U., 1971; MA, U. of Utah, 1978; PhD, U. of Denver, 1989.
Hughes, Dean (2005) BA, Weber State Coll., 1967; MA, PhD, U of Washington, 1968, 1972.
Johstoneaux, Raphael (1986) BS, MA, Brigham Young U., 1962, 1968; PhD, George Peabody Coll. of Vanderbilt U., 1980.
Jorgensen, B. W. (1975) BA, Brigham Young U., 1966; MA, PhD, Cornell U., 1969, 1978.
Lawrence, A. Keith (1992) BA, MA, Brigham Young U., 1977, 1980; PhD, U. of Southern California, 1987.
Lundquist, Suzanne E. (1984) BA, MA Brigham Young U., 1965, 1972; DA, U. of Michigan, 1985.
Mason, Nicholas A. (1999) BA, MA, Brigham Young U., 1993, 1995; PhD, State U. of New York, Stony Brook, 1999.
McInelly, Brett C. (2000) BA, Weber State U., 1992; MA, Brigham Young U., 1995; PhD, U. of Cincinnati, 2000.
Nelson, Joyce (1990) BS, Utah State U., 1956; MS, Florida State U., 1971.
Perry, Dennis R. (2000) BA, MA, Brigham Young U., 1979, 1981; PhD, U. of Wisconsin, Madison, 1986.
Petersen, Zina N. (1995) BA, Brigham Young U., 1987; MA, PhD, Catholic U., 1990, 1997.
Rudy, Jill Terry (1996) BA, MA, Brigham Young U., 1987, 1990; PhD, Indiana U., 1997.
Siegfried, Brandie R. (1993) BA, MA, Brigham Young U., 1988, 1990; MA, PhD, Brandeis U., 1993.
Snyder, Phillip A. (1988) BA, MA, Brigham Young U., 1977, 1980; PhD, U. of North Carolina, Chapel Hill, 1988.
Sorensen, Peter J. (1990) BA, BA, MA, Brigham Young U., 1975, 1977, 1979; PhD, Washington State U., 1988.
Thursby, Jacqueline (1996) BA, Idaho State U., 1985; MS, Utah State U., 1991; PhD, Bowling Green State U., 1994.
Tourney, Leonard (2006) BA, Brigham Young U., 1963; MA, PhD, U. of California, Santa Barbara, 1966, 1972.
Wahlquist, Elizabeth (1962) BA, Brigham Young U., 1955; MA, MLit, Middlebury Coll., 1962, 1971.
Young, Bruce W. (1983) BA, Brigham Young U., 1975; MA, Columbia U., 1976; AM, PhD, Harvard U., 1978, 1983.
Zimmerman, Beverly B. (1993) BA, PhD, Brigham Young U., 1967, 1994.

Assistant Professors

Burton, Gideon D. (1994) BA, Brigham Young U., 1989; MA, MPW, PhD, U. of Southern California, 1994.
Christiansen, Nancy L. (1994) BA, MA, Brigham Young U., 1976, 1983; PhD, U. of California, Los Angeles, 1994.
Christianson, Frank Q. (2004) BA, MA, Brigham Young U., 1994, 1996; PhD, Brown U., 2004.
Eastley, Aaron C. (2003) BA, MA, Brigham Young U., 1997, 1998; PhD, U. of California, San Diego, 2003.
Grierson, Sirpa T. (1997) BEd, U. of British Columbia, Canada, 1974; MLIS, Brigham Young U., 1992; PhD, U. of Southern Mississippi, 1996.
Hatch, David A. (2004) BA, Brigham Young U., 1994; MA, PhD, Florida State U., 1996, 2004.
Hickman, Trenton L. (2000) BA, MA, Brigham Young U., 1994, 1996; PhD, State U. of New York, Stony Brook, 2000.
Jackson, Matthew (2005) BA, MA, Brigham Young U., 1991, 1993; PhD, U. of Utah, 2006.
Johnson, Kimberly (2003) BA, U. of Utah, 1992; MA, Johns Hopkins U., 1995; MFA, U. of Iowa, 1997; PhD, U. of California, Berkeley, 2003.
Madden, Patrick (2004) BA, U. of Notre Dame, 1993; MA, Brigham Young U., 1999; PhD, Ohio U., 2004.
Matthews, Kristin (2004) BA, Brigham Young U., 1995; MA, PhD, U. of Wisconsin, Madison, 1997, 2004.
Muhlestein, Daniel K. (1993) BA, MA, Brigham Young U., 1984, 1987; PhD, Rice U., 1992.
Paul, Danette (1996) BA, MA, Brigham Young U., 1987, 1989; PhD, Pennsylvania State U., 1996.
Talbot, John (2001) BA, U. of Utah, 1990; MA, PhD, Boston U., 1993, 2001.
Thorne-Murphy, Leslee (2002) BA, MA, Brigham Young U., 1990, 1993; PhD, Brandeis U., 2001.
Tuttle, Stephen (2006) BA, MFA, PhD, U. of Utah, 1999, 2002, 2006.
Wickman, Matthew F. (2000) BA, Brigham Young U., 1992; MA, New York U., 1994; PhD, U. of California, Los Angeles, 2000.
Wilcox, Miranda (2007) BA, Brigham Young U., 1999; MMS, PhD, U. of Notre Dame, 2002, 2006.

Associate Teaching Professors

Bird, Penny C. (1992) BA, MA, Brigham Young U., 1970, 1996.
Shakespeare, William O. (1974) BA, MA, PhD, Brigham Young U., 1970, 1982, 1996.

Part-Time Instructors

Beeson, John
Black, Dianna
Boswell, Lisa
Christy, Lynne
Cutler, Mary Lynn
de Hoyos, Ben
Eddy, Shauna
Fleming, Anne
Gunn, Nancy
Hale, Lisa
Jackson, Nathan
Jackson, Sherland
Jackson, Tracy
Johstoneaux, Pamela
Jones, Sondra
Kramer, Neal
Lott, Kent
Miller, Susan
Newell, Neil
Nickell, Samila
Rutter, Michael
Snyder, Delys
Walton, Rick
Wistisen, Nicole
Woolley, Ann
Young, Margaret

Emeriti

Arnold, Marilyn (1969) BS, MS, Brigham Young U., 1957, 1958; PhD, U. of Wisconsin, 1968.
Ballantyne, VerDon W. (1963) BS, MA, Brigham Young U., 1961, 1964.
Beecher, Maureen Ursenbach (1980) BS, Brigham Young U., 1958; MA, PhD, U. of Utah, 1966, 1973.
Bell, Elouise M. (1963) BA, U. of Arizona, 1957; MA, Brigham Young U., 1959.
Bennion, George C. (1961) BA, Brigham Young U., 1949.
Best, Brian S. (1960) BS, MA, Brigham Young U., 1958, 1962; PhD, U. of Wisconsin, Madison, 1971.
Best, Lorna Ruth Nielsen (1958) BA, MA, Brigham Young U., 1956, 1962.
Blanch, Mae (Mable) (1959) BA, Brigham Young U., 1950; PhD, U. of Colorado, 1966.
Calder, Rose Eyring (1965) BA, Brigham Young U., 1932; MA, Columbia U., 1936; PhD, U. of California, Berkeley, 1944.
Clark, Bruce B. (1950) BA, U. of Utah, 1943; MA, Brigham Young U., 1948; PhD, U. of Utah, 1951.
Cox, Soren F. (1955) BA, MA, Brigham Young U., 1952, 1956; PhD, U. of Minnesota, Minneapolis, 1964.
Cracroft, Richard H. (1963) BA, MA, U. of Utah, 1961, 1963; PhD, U. of Wisconsin, Madison, 1969.
Craig, Marshall R. (1953) BS, Brigham Young U., 1941; MA, PhD, Columbia U., 1947, 1968.
Ellsworth, Richard G. (1958) BA, MA, Brigham Young U., 1951, 1952; PhD, U. of Maryland, College Park, 1959.
Evans, David Louis (1954) BA, Idaho State U., 1948; MA, PhD, U. of Utah, 1953, 1968.
Farnsworth, Dean B. (1953) BA, MA, U. of Utah, 1946, 1947; PhD, U. of California, Berkeley, 1950.
Gassman, Byron W. (1960) BA, Brigham Young U., 1955; MA, PhD, U. of Chicago, 1956, 1960.
Geary, Edward A. (1968) BA, MA, Brigham Young U., 1960, 1963; PhD, Stanford U., 1971.

Harris, John B. (1958) BA, MA, Brigham Young U., 1955, 1956; PhD, Wayne State U., 1965.
Harris, John S. (1962) BA, MA, Brigham Young U., 1953, 1958.
Hart, Edward L. (1952) BS, U. of Utah, 1939; MA, U. of Michigan, 1941; DPhil, Oxford U., England, 1950.
Hayes, Darwin L. (1961) BA, MA, Brigham Young U., 1957, 1963.
Hooker, Joyce S. (1980) BS, U. of Idaho, 1955; MIE, Utah State U., 1979.
Hunsaker, O. Glade (1964) BS, Utah State U., 1960; MA, Brigham Young U., 1964; PhD, U. of Illinois, 1970.
Lambert, Neal E. (1966) BA, PhD, U. of Utah, 1961, 1966.
McKendrick, John E. (1953) BA, MA, U. of Utah, 1942, 1949.
Monson, Samuel C. (1952) BS, Utah State U., 1941; MA, PhD, Columbia U., 1948, 1952.
Murphy, John J. (1984) BA, MA, St. John's U., 1956, 1961.
Pedersen, Elray (1983) BS, MA, Brigham Young U., 1962, 1964; PhD, U. of Minnesota, 1977.
Plummer, Louise R. (1993) BS, MA, U. of Minnesota, 1980, 1984.
Ream, Susan E. (1961) BA, Brigham Young U., 1953; MA, Columbia U., 1958.
Ridenhour, Ted E. (1959) BA, MA, Brigham Young U., 1957, 1960.
Rigby, W. Dean (1966) BA, MA, Brigham Young U., 1953, 1970.
Tanner, Stephen L. (1978) BA, MA, U. of Utah, 1962, 1964; PhD, U. of Wisconsin, Madison, 1969.
Tate, Charles D. (1960) BS, MS, Utah State U., 1954, 1958; PhD, U. of Colorado, 1966.
Taylor, Sally T. (1978) BS, MA, Brigham Young U., 1960, 1965; PhD, U. of Utah, 1975.
Thomas, Gordon K. (1976) BA, MA, Brigham Young U., 1959, 1960; PhD, Tulane U. of Louisiana, 1968.
Thomas, John Alfred (1962) BA, MA, Brigham Young U., 1953, 1954; PhD, U. of Maryland, College Park, 1962.
Thomas, Paul R. (1980) BA, Brigham Young U., 1964; MA, U. of Virginia, 1967; DPhil, U. of York, England, 1982.
Waterstradt, Jean Anne (1945) AA, Weber Coll., 1943; BA, Brigham Young U., 1945; MA, U. of Southern California, 1955.
Williams, Ray S. (1966) BA, Coker Coll., 1960; MA, PhD, Florida State U., 1962, 1965.
Wilson, William A., Humanities Professor of Literature and Folklore, (1984) BA, MA, Brigham Young U., 1958, 1962; PhD, Indiana U., 1974.

English as a Second Language

See Linguistics and English Language section of this catalog.

Estonian

See Center for Language Studies.

Exercise Sciences

Larry T. Hall, Chair
106 SFH, (801) 422-7303

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

Some of the degree programs in the Department of Exercise Sciences carry special enrollment limitations. Please see the college advisement center for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Athletic Training
BS	Exercise Science
BS	Exercise Sciences
	Emphasis:
	Fitness and Wellness Management
BS	Physical Education Teaching/Coaching (K–12)
Minors	Coaching and Teaching Physical Education
	Elementary Physical Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Exercise Sciences
PhD	Exercise Sciences/Wellness

For more information see the BYU 2007–2008 Graduate Catalog.

BS Athletic Training (70 hours*)

The Discipline

The study of athletic training appeals to those who would like to work in a field that combines an athletic setting with health and fitness care. A student in athletic training will learn to apply knowledge of human anatomy, exercise physiology, conditioning, nutrition, and therapy in the prevention, immediate care, and rehabilitation of athletic injuries.

Students must graduate from an accredited athletic training program and pass the BOC examination to certify as an athletic trainer.

Career Opportunities

Career possibilities include working with athletic teams at all levels of competition or in a sports medicine clinical setting or other allied health facilities or in a corporate/industrial setting. NATA certification is required, and an advanced degree is recommended.

Major Requirements

1. Complete a minimum of 45 major hours in residence at BYU.
2. Complete application into the athletic training program during semester of enrollment in ExSc 320. See the program director or ExSc 320 instructor for an application packet.
   a. Have a physical examination.
   b. Submit two letters of recommendation.
   c. Interview with the athletic training staff.
   d. Complete 30 hours of clinical observation or experience in a college or high school athletic training setting.
3. Complete the senior exit interview.
4. Maintain CPR certification.
5. Meet the technical standards associated with the athletic training education program.
6. Complete the following:
   ExSc 202, 302, 320, 321, 362, 400, 414, 415, 416, 417, 418, 419, 423, 460, 463, 464, 468, 501.
   Hlth 320.
   MMBio 221.
   NDFS 310.
   PDBio 220, 305.
   Psych 111.
   Stat 221.
7. Complete the following:
   ExSc 498 (to be taken last semester prior to graduation).
8. Complete the following:
   ExSc 394, 395, 494, 495 (clinical internship; must be completed over a two-calendar-year period).

*Hours include courses that may fulfill university core requirements.

BS Exercise Science (58.5–60.5 hours*)

The Discipline

Designed to provide the basics from which the student can pursue specialized training in physical therapy, occupational therapy, medicine, physician assistant, chiropractic, and other health-care professions, the exercise science emphasis explores the intriguing relationship between exercise and the functioning of the human body. The basic concepts of human anatomy, physiology, biomechanics, motor learning, chemistry, physics, and nutrition are mastered to help understand this relationship. The impact that movement and exercise have on the human organism is almost interminable, making study of this discipline enthralling.

Students considering medicine as a profession may want to select this major. While providing most requisite courses for medical school acceptance, it also conveys a healthy-lifestyle, preventive-medicine health care perspective.

Career Opportunities

The exercise science emphasis provides excellent preparation for students interested in graduate work in exercise physiology (MS, PhD) or those desiring to pursue training in medicine, physical therapy, cardiac rehabilitation, podiatry, chiropractic, and other health care professions. Graduates with this major may also find opportunities in community, corporate, or hospital wellness centers and health promotion programs. Positions requiring only a bachelor's degree may be difficult to find.

Major Requirements

1. Complete senior exit interview.
2. Complete the following:
   Chem 105.
   ExSc 302, 362, 400, 460, 463, 464.
   NDFS 100.
   PDBio 220, 305.
   Stat 221.
3. Complete one course from the following:
   Chem 285, 351.
4. Complete one course from the following:
   Math 112, 119.
5. Complete one course from the following:
   NDFS 201, 310, 424.
6. Complete one of the following options:
   Either Phscs 105, 107
   Or Phscs 121.
7. Complete 15 hours from the following:
   Biol 120, 240, 241, 340, 360.
   Chem 106, 107, 352, 353, 468, 481.
   C S 142.
   ExSc 202, 320, 321, 387, 468, 470, 485, 497R, 501.
   Hlth 320, 365, 461.
   InBio 370.
   MMBio 221, 222.
   NDFS 200, 305.
   PDBio 225, 320, 362, 363, 365, 484, 561, 565.
   Phscs 106, 108.
   Psych 111, 220, 342.
   Soc 111, 112.
   StDev 227, 229, 239, 329, 399R, 439.

   Note: Watch prerequisites for the elective courses.

Note to Premed Students: Some medical schools require select classes not required by BYU. For more information contact the Preprofessional Advisement Center, 3326 WSC, (801) 422-2318. Contact potential schools of choice for a complete list of entrance requirements.

*Hours include courses that may fulfill university core requirements.

BS Exercise Sciences: Fitness and Wellness Management Emphasis (60.5 hours*)

The Discipline

Fitness and wellness management is a departure from the typical U.S. medical model in that the focus is on helping individuals achieve optimal health and fitness, rather than on discovering and treating disease. Recent research findings, along with rising health-care costs, have spurred an interest in keeping people healthy to improve their quality of life and also to avoid unnecessary medical expenses.

Depending on electives completed, there are several excellent graduate school options to pursue. Earning a master's degree in exercise science/physical education, for example, can give the added knowledge and experience needed to direct a private, commercial, corporate, or clinical health/fitness program. Other graduate opportunities include a master's in public health (MPH), business administration (MBA), recreational therapy (MS), or nutrition, dietetics, and food science (MS), to name a few.

Career Opportunities

Personal fitness professionals find employment primarily in commercial or community fitness centers but may also work in hospital wellness programs or corporate health-promotion programs. Job responsibilities typically involve teaching clients how to achieve optimal wellness through effective exercise, wholesome nutrition, and successful stress-management strategies.

Major Requirements

1. Complete the senior exit interview.
2. Complete the following:
   ExSc 285, 365, 387, 463, 464, 468, 485.
   Hlth 320.
   NDFS 100, 201.
   PDBio 220, 305.
3. Complete 4 hours of the following:
   ExSc 399R.
4. Complete 26 hours of the following elective requirements:
   Track 1: Lifestyle Management. Students interested in lifestyle management should complete 15–26 hours in Track 1 and 0–11 hours in Track 2.
   Dance 336.
   ExSc 202, 302, 410, 455.
   Hlth 365, 370, 375, 450, 460, 461, 466.
   NDFS 200, 310.
   Stat 221.

   Track 2: Fitness/Business Management. Students interested in fitness/business management should complete 15–18 hours in Track 2 and 8–11 hours in Track 1.
   Acc 200.
   Bus M 300, 340, 371R, 372.
   ExSc 351.
   Org B 320.

   Note: Students interested in Track 2 may also wish to minor in management (in the Marriott School of Management).

*Hours include courses that may fulfill university core requirements.

BS Physical Education Teaching/Coaching (K–12)

(76–77 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or department office for information regarding requirements for admission to this emphasis.

The Discipline

Students preparing to teach and/or coach physical education will have a variety of experiences that will enhance proficiency in the knowledge and skills requisite to working in the contemporary school setting. Majors learn to perform a variety of sport, fitness, and dance activities personally. After becoming proficient, students take courses and have practical experiences in teaching and coaching children, adolescents, and adults. The discipline is interesting and rewarding, and those in a teaching/coaching career help others pursue and practice healthy lifestyle habits.

Career Opportunities

Graduates seek teaching and physical education/coaching careers in elementary and secondary education settings. With an advanced degree, teaching and coaching positions at institutions of higher learning are available.

It is recommended that students desiring to be optimally employable in secondary schools complete an approved teaching minor and an American Sport Education Program (ASEP) coaching certification.

Major Requirements

1. Prior to beginning course work in the major, students must apply for admittance into the Flight Program. The program requires that all students take the major courses together as a cohort group. See the flight advisor during January of the sophomore year (249 SFH).
2. Complete the senior exit interview.
3. A teaching minor is not required for licensure. However, it is strongly recommended.
4. Complete the following required prerequisite and general education courses:
   HEPE 129.
   MFHD 210.
   PDBio 220, 305.
5. Complete the following:
   Dance 356.
   ExSc 206, 230, 231, 233, 239, 300, 302, 320, 321, 352, 360, 361, 362, 369, 399R, 430.
6. Complete one course from the following:
   ExSc 330R, 335, 341, 342, 344, 345, 346, 347.
7. Complete one course from the following:
   ExSc 171, 172, 277, 278.

   Note: ExSc 277 or 278 is preferred.
8. If ExSc 171 or 172 is taken in item 7 above, complete one course from the following:
   ExSc 125, 136, 137, 146, 147, 155 (or other approved course).
9. Complete the Professional Education Component:
   a. Complete the following:
      ExSc 374, 377, 380, 461.
      Sc Ed 276R (3 hours required), 350.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in ExSc 377.
   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor Coaching and Teaching Physical Education

(23.5–27.5 hours)

Students can choose this minor to prepare to coach. Students who have met the university's teacher licensure requirements will also be qualified to teach physical education with this minor.

Minor Requirements

1. Complete the following:
   ExSc 206, 229, 234, 235, 320, 321, 351, 364, 365, 366, 399R, 430, 450.
2. Complete one course from the following:
   ExSc 330R, 335, 341, 342, 344, 345, 346, 347.

Minor Elementary Physical Education (19–21.5 hours*)

Minor Requirements

1. Be an elementary education major.
2. Complete the following:
   Dance 326.
   ExSc 169, 364, 366, 375, 376, 461.
   Hlth 320.
3. Complete one course from the following:
   ExSc 230, 231.
4. Complete one dance or exercise science activity course.

*Hours include courses that may fulfill university core requirements.

Health/Physical Education (HEPE)

Undergraduate Course

105. Healthy Living. (0.5:1:0)
Scientific evidence supporting the importance of a healthy lifestyle. Students will engage in healthy nutritional and exercise practices.

129. Fitness and Lifestyle Management. (2:2:1)
Why a healthy lifestyle is needed and how to write individualized programs to meet these needs.

Exercise Sciences (ExSc)

Undergraduate Courses

100R. Intercollegiate Athletics. (0.5:2:10.5 ea.)

101R. Activities for Fitness and Weight Control. (0.5:0:2 ea.)

102R. Adapted Physical Education. (0.5:0:2 ea.) Prerequisite: medical referral.

106. Badminton, Beginning. (0.5:0:2)

111. Basketball, Beginning. (0.5:0:2)

112. Basketball, Intermediate. (0.5:0:2) Prerequisite: ExSc 111 or equivalent.

116. Bowling, Beginning. (0.5:0:2) Fee.

117. Bowling, Intermediate. (0.5:0:2) Fee.

120. Cycling. (0.5:0:2)
Basic knowledge and skills in cycling and bike maintenance.

121. Diving, Springboard. (0.5:0:2)

125. Flexibility. (0.5:0:2)

130. Weight Management. (0.5:0:2) F, W, Sp
Improving fitness levels and body composition by participating in regular physical activity and monitoring and reducing dietary intake.

131. Golf, Beginning. (0.5:0:2)

132. Golf, Intermediate. (0.5:0:2) Prerequisite: ExSc 131 or equivalent.

136. Gymnastics, Beginning. (0.5:0:2)

137. Gymnastics, Intermediate. (0.5:0:2) Prerequisite: ExSc 136 or equivalent.

139. Jogging. (0.5:0:2) Independent Study also.

141. Martial Arts. (0.5:0:2)

143R. Physical Training—ROTC. (0.5:0:2 ea.) For ROTC students only.

146. Racquetball, Beginning. (0.5:0:2)

147. Racquetball, Intermediate. (0.5:0:2)

150. Ice Skating. (0.5:0:2)
Developing figure and ice hockey skills. Taught off campus. Fee.

151. Ice Hockey. (0.5:0:2) Prerequisite: beginning ice skating or instructor's consent.
Basic power skates, puck and stick handles, and game strategies. Fee.

152 Intermediate Ice Skating. (0.5:0:2) F, W, Sp, Su Prerequisite: ExSc 150 or equivalent.
Developing intermediate ice skating skills. Taught off campus. Fee.

153. Intermediate Ice Hockey. (0.5:0:2) F, W, Sp, Su Prerequisite: ExSc 151 or equivalent.
Developing intermediate ice hockey skills. Taught off campus. Fee.

155. Self-Defense. (0.5:0:2)
Fundamental principles, skills, and techniques.

156. Soccer, Beginning. (0.5:0:2)

157. Soccer, Intermediate. (0.5:0:2) Prerequisite: ExSc 156 or equivalent.

161. Skiing, Beginning. (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.

162. Skiing, Intermediate. (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.

164. Skiing, Cross-Country. (0.5:0:2)
Students responsible for following costs: bus transportation, ski equipment. Students required to use bus transportation provided. Fee.

169. Elementary Skills and Activities. (0.5:0:2) F, W, Sp, Su
Physical skills and activities specific to elementary-age children. Required for elementary education majors. Meets one Wellness physical education activity requirement.

170. Swimming for Nonswimmers. (0.5:0:2)

171. Swimming, Beginning. (0.5:0:2)

172. Swimming, Intermediate. (0.5:0:2) Independent Study also. Prerequisite: ExSc 171 or equivalent.

174R. Swimming for Students with Disabilities. (0.5:0:2 ea.)
Can be taken repeatedly to fulfill the university physical education activity requirement for any student with special needs.

175. Beginning Scuba Diving. (0.5:0:2)
Developing scuba diving skills. Taught off campus. Fee.

176. Advanced Scuba Diving. (0.5:0:2) Prerequisite: ExSc 175 or Open Water Diver Certification.
Advanced open water skills and concepts. Advanced open water certification upon successful completion. Fee.

177. Rescue Scuba. (0.5:0:2) Prerequisite: ExSc 176 or Advanced Open Water Diver Certification.
CPR, first aid, and diving rescue procedures and concepts. Rescue certification upon successful completion. Fee.

179. Water Aerobics. (0.5:0:2) For nonswimmers and swimmers.
Exercise workout in water emphasizing flexibility, strength, and endurance.

181. Tennis, Beginning. (0.5:0:2)

182. Tennis, Intermediate. (0.5:0:2) Prerequisite: ExSc 181 or equivalent.

183. Tennis, Advanced. (0.5:0:2) Prerequisite: ExSc 182 or equivalent.

186. Volleyball, Beginning. (0.5:0:2)

187. Volleyball, Intermediate. (0.5:0:2) Prerequisite: ExSc 186 or equivalent.

188. Volleyball, Advanced. (0.5:0:2) Prerequisite: ExSc 187 or equivalent.

191. Weight Training, Beginning. (0.5:0:2)

192. Weight Training, Intermediate. (0.5:0:2) Prerequisite: ExSc 191 or equivalent.
Theory and technique of maximal strength development, emphasizing "power" and "Olympic" lifts.

201R. Extramural Sports. (0.5:0:2 ea.)

202. Introduction to Allied Health Professions. (1:1:0)
Allied fields of athletic training, exercise physiology, health promotion, and physical therapy. Survey and history of the allied fields and their relation to other health care professions.

203. Performance Psychology. (1:1:1)
Relaxation and imagery for athletes and performing artists.

206. Officiating Team Sports. (1:1:0)
Techniques, rules, and problems related to officiating, with particular attention to relationship between coach and official.

229. Physical Education Pedagogy. (2:2:0)
Sport pedagogy for students *minoring* in physical education/coaching.

230. Sports and Activities 1. (2:0:6) Prerequisite: acceptance into PETE program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include soccer, flag football, track and field, volleyball, and fitness.

231. Sport and Activities 2. (2:0:6) Prerequisite: acceptance into PETE program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include basketball, tennis, golf, and softball.

233. Lifetime and Leisure Activities. (1:0:3) Prerequisite: acceptance into PETE program.
Exposure to and development of skills in contemporary, noncompetitive, lifelong leisure activities.

234. Team Sport Fundamentals. (1:0:4) For *minors* in physical education/coaching only. Prerequisite: ExSc 229.
Skill and pedagogy development in soccer and volleyball.

235. Sport Fitness Techniques. (1:0:4) For *minors* in physical education/coaching only. Prerequisite: ExSc 229.
Skill and pedagogy in flexibility and weight training.

239. Weight Training: Skills and Teaching Techniques. (0.5:0:2)

277. Techniques of Lifeguarding. (2:1:3) Prerequisite: swim competency test (given first day of class).
First-aid and lifeguard skills training, including instruction in CPR, and American Red Cross certification for lifeguard training.

278. Water Safety Instructor Training. (2:1:3) Prerequisite: ARC Swimmer–level competency.
Leads to American Red Cross WSI certification. Swimming teaching methods that include teaching swimming to special needs students.

285. Group Exercise Prescription and Technique. (2:2:0)
Designing and implementing individual and group fitness and wellness programs based upon the latest scientific concepts, utilizing safe and effective techniques, to develop flexibility, strength, and cardiovascular endurance.

300. Historical and Sociological Foundations of Physical Education. (2:2:0)
Historical and sociological foundations of physical education and sport.

302. Philosophical and Ethical Issues in Exercise Sciences. (1:1:0) F, W, Sp, Su
Philosophical and ethical issues common to exercise science majors. Concept of mind, body, spirit.

320. Basic Athletic Training. (3:3:0) Prerequisite: PDBio 220; concurrent enrollment in ExSc 321.
Recognition, evaluation, and care of athletic injuries. Techniques in taping, preventing, and rehabilitating injuries.

321. Basic Athletic Training Lab. (0.5:0:0.5) Prerequisite: concurrent enrollment in ExSc 320. Fee.

330R. Coaching Selected Sports. (2:1:2 ea.) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching golf, tennis, or wrestling.

335. Coaching Competitive Swimming. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching swimming.

341. Coaching Basketball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching basketball.

342. Coaching Track and Field. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching track and field.

344. Coaching Football. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching football.

345. Coaching Volleyball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching volleyball.

346. Coaching Baseball and Softball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching baseball and softball.

347. Coaching Soccer. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching soccer.

349. Body, Mind, Spirit. (3:3:0) Honors also.
Sacredness of the body and its meaningfulness to the whole being. Comparative approach utilizing ideas from the restored gospel and Western and Eastern philosophy (nature of being).

351. Administration of Physical Education and Athletics. (2:2:0) For teaching and coaching minors. Independent Study also.
Management styles and techniques for physical education and athletic programs; policies concerning eligibility, contest management, safety, facilities, and legal concerns.

352. Legal and Administrative Aspects of Physical Education and Sport. (3:3:0) Prerequisite: acceptance into PETE program.
Principles of physical education and intramural management including facilities, equipment, fiscal matters, personnel, public relations, and program administration. Legal considerations of physical education and sport programs, including constitutional rights, gender, liability, and risk management.

360. Curriculum and Assessment of Learning in Physical Education. (3:3:0) Prerequisite: acceptance into PETE Program.
Curriculum development to meet national physical education standards. Assessment of psychomotor, cognitive, and affective learning, including elementary statistical testing.

361. Introduction to Motor Learning. (3:2:2)
Motor and cognitive factors influencing acquisition of motor skills.

362. Kinesiology and Biomechanics. (3:3:0) Prerequisite: PDBio 220, Math 110 or higher. Recommended: Phscs 105 or 121.

364. Scientific Bases of Sport 1: Motor Learning. (2:2:0)
Motor learning principles for physical education/coaching minor.

365. Scientific Bases of Sport 2: Kinesiology. (2:2:0)
Kinesiology and biomechanics for physical education/coaching minor.

366. Scientific Bases of Sport 3: Exercise Physiology. (2:2:0)
Physiology of activity for physical education/coaching minor.

369. Exercise Physiology for Physical Educators. (3:Arr.:Arr.) F Prerequisite: PDBio 305.

374. Fundamental Skills and Teaching Methods for Elementary Physical Education. (3:2:2) Prerequisite: acceptance into PETE program.
Identifying and demonstrating fundamental skills; identifying immature and mature movement patterns; selecting developmentally appropriate activities; appropriate management techniques.

375. Physical Education for Elementary School Teachers. (2:1:3) Prerequisite: ExSc 169.

376. Practical Experience in Teaching Elementary School Physical Education. (2:0:4) Prerequisite: ExSc 375.

377. Secondary Practicum. (3:1:3) Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance; acceptance into PETE program.
Written and practical teaching assignments designed to help prospective teachers plan, conduct, and evaluate lessons and unit plans appropriate to adolescent students.

380. Use of Technology in Physical Education Teaching. (2:2:0) Prerequisite: acceptance into PETE Program.
Applying computer technology: Web page design and software focusing on skill, fitness grading, digital video editing, and presentation. Meets secondary education technology requirements.

387. Lifestyle and Chronic Disease Prevention. (3:3:0)
Current scientific evidence demonstrating how lifestyle affects disease processes. Healthy lifestyle concepts specifically needed by wellness professionals, health educators, and health promotion practitioners; influence of unhealthy lifestyle as basis for chronic diseases, i.e. cardiovascular disease, cancer, and diabetes.

394. Athletic Training Clinical Education 1. (2:1:5) Prerequisite: admission to athletic training program.
Classroom and field experience. Orientation to athletic training program and clinical expectations. Modules include emergency care, taping skills, and basic modalities.

395. Athletic Training Clinical Education 2. (2:1:5) Prerequisite: ExSc 394.
Classroom and field experience. Modules include taping skills, assessment, and modalities.

399R. Academic Internship. (1–9:0:Arr. ea.) Prerequisite: advisor's consent; ExSc 202 for health promotion majors.
On-the-job experience for physical education majors and coaching and physical education minors.

400. Functional Anatomy and Kinesiology. (4:3:2) Prerequisite: ExSc 362 or equivalent.
Advanced examination of structure and function of skeletal, articular, muscular, and peripheral nervous systems with clinical applications; cadaver lab included.

410. Stress and Emotional Health. (2:2:0)
Practical experience in learning to understand and manage stress.

414. Advanced Athletic-Training Lab. (1:0:2) Prerequisite: admission to athletic training program.
Advanced athletic-training skills, including taping, bracing and splinting, custom-fitted equipment, massage and stretching techniques, and emergency splinting and transport.

415. Therapeutic Modalities. (3:2:2) F, W Prerequisite: admission to athletic training program.
Hydrotherapy, massage, traction, radiant energy, heat, cold, and electrotherapy.

416. Injury Evaluation: Lower Extremities. (3:3:0) Prerequisite: admission to athletic training program.
Basic principles of injury evaluation; evaluation techniques specific to lower-extremity injuries.

417. Injury Evaluation: Upper Extremities and Trunk. (3:3:0) Prerequisite: ExSc 416.
Injury evaluation techniques specific to the upper extremities and trunk.

418. Rehabilitation of Orthopedic Injuries. (3:3:0) F, W Prerequisite: ExSc 415.
Basic principles, techniques, and progression of orthopedic/musculoskelatal rehabilitation.

419. Medical Issues in Athletic Training. (1:1:0) Prerequisite: ExSc 417 or concurrent enrollment.
Discussion of current medical issues in athletic training, with guest lectures by medical specialists.

423. Administration of Athletic Training Programs. (2:2:0) Prerequisite: ExSc 415.
Management and administration of athletic training facilities and staff members.

430. Theory of Coaching. (2:2:2)

450. Psychology of Sport. (2:2:0)

455. Worksite Health Promotion. (3:3:0) F, W Prerequisite: ExSc 363, 387.
Designing, implementing, managing, administering, marketing, and assessing health promotion programs in a worksite setting.

460. Orthopaedic Impairments and Therapeutic Exercise. (3:3:0) Prerequisite: ExSc 362; PDBio 220 or equivalent.
Fundamentals of body mechanics and therapeutic exercise, coupled with kinesiological principles for detection and correction of basic neuromusculoskeletal anomalies.

461. Adapted Physical Education for Teaching Majors. (3:2:1) Prerequisite: acceptance into PETE program.
Program, legal mandates, management techniques, and assessing and identifying special needs students.

463. Exercise Physiology. (3:3:0) F, W, Sp, Su Prerequisite: PDBio 305; concurrent enrollment in ExSc 464.

464. Exercise Physiology Lab. (0.5:0:1) F, W, Sp, Su Prerequisite: ExSc 463 or concurrent enrollment.

468. Problems in Exercise Prescription. (2:2:0) Prerequisite: ExSc 363.
Applying scientific principles to problems in conditioning.

470. Functional Neuroanatomy. (3:3:0) Prerequisite: PDBio 220, ExSc 400.
Function, assessment, and rehabilitation of sensory and motor systems.

476. Elementary Student Teaching in Physical Education. (3:1:5) Prerequisite: completion of courses in public school teaching major and instructor's consent.

485. Fitness Instructor Workshop. (3:3:0) Prerequisite: senior status.
Review of personal fitness trainer curriculum; preparation for American College of Sports Medicine certification.

494. Athletic Training Clinical Education 3. (2:1:5) Prerequisite: ExSc 395.
Classroom and field experience. Modules include injury assessment and management, rehabilitation skills, and knowledge of general medical conditions.

495. Athletic Training Clinical Education 4. (2:1:5) Prerequisite: ExSc 494.
Classroom and field experience. Modules include injury assessment and management, rehabilitation skills, nutrition, and dermatology.

496R. Academic Internship: Practicum. (1–8:0:Arr. ea.) Prerequisite: ExSc 320, 420, and instructor's consent.
Academic and practical application of skills for athletic trainers.

497R. Undergraduate Research and Study. (1–4:0:Arr. ea.)
Individual research and study in any area of physical education.

498. Capstone Experience in Athletic Training. (2:2:0) F, W
Prerequisite: senior standing in athletic training education program. Course should be taken last semester prior to graduation.

Synthesizing and integrating student classroom and clinical experiences in preparation for BOC examination resulting in certification of allied health professionals.

500-Level Graduate Courses (available to advanced undergraduates)

501. Sports Medicine Pharmacology. (2:2:0) Prerequisite: ExSc 320, 321; or equivalents.

Pharmacological information for students in a variety of sports medicine/allied health professions. Meets educational JRC-AT competencies.

560. Orthopaedic Pathomechanics. (2:2:1) Prerequisite: ExSc 460 or equivalent.

Advanced analysis of neuromusculoskeletal deformities and/or injury. Therapeutic exercise and the use of orthoses.

582. Physical Education for Special Populations. (2:2:0) Prerequisite: baccalaureate degree in physical education.

Theoretical and practical aspects of teaching individuals with disabilities.

586R. Workshop in Fitness and Sport. (1–4:Arr.:Arr. ea.) Prerequisite: undergraduate major in physical education or equivalent.

599R. Academic Internship: Practicum. (1–9:0:Arr. ea.)

Field experience for exercise science students; 50 hours of service in approved organization required per credit hour.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Exercise Sciences Faculty

Professors

Aldana, Steve (1994) BS, MS, Brigham Young U., 1986, 1988; PhD, Arizona State U., 1991.
Allsen, Philip Edmond (1966) BS, Ricks Coll., 1955; MS, Brigham Young U., 1960; EdD, U. of Utah, 1965.
Draper, David (1992) BS, Utah State U., 1982; MA, Brigham Young U., 1984; EdD, Northern Illinois U., 1988.
Knight, Kenneth L. (1996) BS, BS, Weber State U., 1969, 1973; PhD, U. of Missouri, 1977.
Lockhart, Barbara D. (1991) BS, MA, Michigan State U., 1964, 1967; EdD, Brigham Young U., 1971.
Mack, Gary (2004) BS, MA, U. of California, Davis, 1977, 1981; PhD, U. of Hawaii, 1984.
Myrer, William (1990) BS, U. of Calgary, Canada, 1974; MA, U. of Windsor, Canada, 1977; PhD, Brigham Young U., 1983.
Tucker, Larry (1988) BS, MS, Brigham Young U., 1978, 1979; PhD, Southern Illinois U., 1981.

Teaching Professionals

Chamberlain, Diane (1969) BA, California State U., Los Angeles, 1966; MS, Brigham Young U., 1969; EdD, U. of Utah, 1984.
Hall, Larry Thomas (1978) BS, MS, Brigham Young U., 1970, 1971; PhD, U. of Utah, 1976.
Olson, Mel J. (1970) BS, MA, EdD, Brigham Young U., 1970, 1973, 1980.

Athletic Professionals

Judkins, Jeff (1999) BA, U. of Utah, 1984.
Mendenhall, Bronco (2003) BS, MA, Oregon State U., 1989, 1990.
Poole, R. Craig (1980) BS, MS, Utah State U., 1964, 1967; EdD, U. of Utah, 1970.
Powers, Timothy J. (1975) BS, U. of Montana, 1968; MA, San Jose State U., 1973.
Rose, David J. (1997) AS, Dixie Coll., 1980; BS, U. of Houston, 1983.
Shane, Patrick (1985) BS, MS, Brigham Young U., 1968, 1970.

Associate Professors

Feland, Brent (1999) BS, Brigham Young U., 1993; MS, Texas Women's U., 1995; PhD, Brigham Young U., 1999.
George, Jim (1995) BS, MA, Brigham Young U., 1984, 1986; PhD, Arizona State U., 1995.
Parcell, Allen C. (1998) BS, Brigham Young U., 1993; MS, Iowa State U., 1995; PhD, Ball State U., 1998.
Pennington, Todd R. (1998) BS, Brigham Young U. 1991; MS, U. of Utah, 1995; PhD, Virginia Polytechnic Inst. and State U., 1998.
Vehrs, Pat Roy (2000) BS, MS, Northern Illinois U., 1984, 1986; PhD, Brigham Young U., 1991.
Wilkinson, Carol (1995) BEd, Durham U., England, 1976; MS, EdD, Brigham Young U., 1981, 1983.
Zanandrea, Maria (1995) BA, MS, EdD, Brigham Young U., 1983, 1985, 1992.

Associate Teaching Professional

Noel, Robert Edward (1979) BS, Brigham Young U., 1964.

Associate Athletic Professionals

Brockbank, Bruce (1992) BS, MS, Brigham Young U., 1990, 1992.
Crump, Wayne Stan (1991) BS, MA, Brigham Young U., 1978, 1988.
Holmoe, Thomas A. (2002) BS, MS, Brigham Young U., 1983, 1994.
Lamb, Barry (1994) BS, U. of Oregon, 1978; MA, Arizona State U., 1988.
Nyhus, Susan B. (1999) BS, MS, Brigham Young U., 1986, 1987; PhD, U. of Utah, 1992.
Robison, Mark T. (1996) BS, MS, Brigham Young U., 1982, 1986.
Russell, Keith (1992) BS, Brigham Young U., 1973.

Associate Clinical Professionals

Merrill, R. Gaye (1981) BS, Brigham Young U., 1978; MS, Indiana U., Bloomington, 1979.
Morris, Kevin (2000) BS, MS, Brigham Young U., 1992, 2002.

Assistant Professors

Graser, Susan D. (2001) BS, MS, Brigham Young U., 1992, 1997; PhD, Arizona State U., 2001.
Hager, Ron (1999) BS, MS, Brigham Young U., 1991, 1994; PhD, Arizona State U., 1997.
Hopkins, Jon Tyler (2003) BS, Brigham Young U., 1996; MS, PhD, Indiana State U., 1997, 2000.
Hunter, Iain (2001) BS, MEd, Brigham Young U., 1996, 1997; PhD, Oregon State U., 2001.
Prusak, Kevin (2002) BS, Brigham Young U., 1986; MEd, Utah State U., 1990; PhD, Arizona State U., 2000.
Seeley, Matthew Kirk (2006) PhD, U. of Kentucky, 2006.

Instructor

Johnson, A. Wayne (2006) BS, Brigham Young U., 1995; MS, U. of Alabama, Birmingham, 1997.

Assistant Athletic Professionals

Aldridge, Brent (2005) BS, U. of South Dakota, 1992.
Alvey, Vaughn (2002) BS, U. of Utah, 1970.
Anae, Robert (2004) BA, PhD, Brigham Young U., 1986, 1999.
Applegate, Robert D. (2005) BS, U. of Southern Colorado, 1996.
Battistone, Dann (2006) BS, Brigham Young U., 2006.
Billings, Carolyn (1997) BS, MS, Brigham Young U., 1993, 1995.
Bills, Allison H. (2001) BS, U. of Utah, 1998.
Chatterton, Jonas B. (2001) BS, U. of Utah, 2001.
DeSantis, David B. (2004) BS, Brigham Young U., 1981.
Doman, Brandon G. (2005) BS, Brigham Young U., 2002.
Eakin, Gordon (1999) BS, U. of Utah, 1978.
Eyestone, Ed D. (2000) BS, MS, Brigham Young U., 1985, 1990.
Grimes, Jeff D. (2004) BS, U. of Texas, El Paso, 1991; MS, Texas A&M, 1997.
Hamblin, James O. (2002) BA, MEd, Brigham Young U., 1991, 2001.
Hanson, Mindy (2002) BA, Brigham Young U., 2002.
Hasler, Holly (2002) BS, Brigham Young U., 2004.

Higgins, Patrick (2005) BS, William Penn U., 1986; MS, St. Cloud State U., 1989.
Hill, Jaime (2006) BS, San Francisco State U., 1988
Huebner, Brooke (2004) BS, San Jose State U., 1998; MS, Brigham Young U., 2004.
Hurst, Jeffery (2006) BS, MS, Brigham Young U., 2000, 2004.
Kaufusi, Steve P. (2002) BS, Brigham Young U., 1994.
Law, Vance A. (1999) BS, Brigham Young U., 1978.
Legas, Richard (1996) BS, Brigham Young U., 1971; MS, Embrey Riddle U., 1987.
Manning, Craig (1997) BS, MS, Brigham Young U., 1995, 2001.
McClure, Justin (2003) BA, MA, U. of Northern Colorado, 1998.
Mertz, Shauna (1996) BS, Brigham Young U., 1993.
Millar, Ryan (2006) BS, Brigham Young U., 2003.
Mitchell, Brian K. (1996) BS, Brigham Young U., 1995.
Morzelewski, Joshua (2006) BS, U. of Utah, 2001.
Myles-Mills, Leonard (2002) BS, Brigham Young U., 1999.
Omer, Jay (2001) BS, Southern Utah State U., 1972; MEd, Auburn U., 1985.
Patchell, Shawn E. (2002) BA, Brigham Young U., 1993; MA, U. of California, Irvine, 1999.
Pearce, Brad (2000) BS, Brigham Young U., 1999.
Penfield, Janette C. (2003) BA, MBA, Brigham Young U., 1998, 2003.
Ramos, Robert J. (2002) BS, MS, Brigham Young U., 1995, 1999.
Reynolds, Lance (1983) BS, Brigham Young, U., 1980.
Rice, David (2005) BA, MBA, U. of Nevada, Las Vegas, 1991, 1993.
Roberts, Ryan A. (2002) BS, Brigham Young U., 1998; MEd, Utah State U., 2002.
Rockwood, Jennifer (1996) BA, Brigham Young U., 1989.
Roese, Walter (2005) BA, MBA, Brigham Young U., 1994, 2003.
Santiago, Brian S. (1997) BS, MBA, Brigham Young U., 1999, 2001.
Skabelund, Shari (1996) BS, Brigham Young U., 1981.
Tidwell, Paul (2001) BA, Southern Utah State U., 1979.
Wardenburg, John Nathan (2001) BS, Brigham Young U., 1986; MS, Utah State U., 1992.
Watkins, Chris (1998) BS, Brigham Young U., 1994.
Watson, Jason (2002) BS, Brigham Young U., 1995.

Assistant Clinical Professionals

Empey, William Blain (1998) BS, Brigham Young U., 1991; MS, Columbia U., 1993.
Linde, Christine (1996) BS, MS, Brigham Young U., 1980, 1982.
Williams, Dustin J. (2006) BS, MS, Utah State U., 2003, 2005.

Emeriti

Barker, Ruel M. (1971) BS, Utah State U., 1961; MS, EdD, Brigham Young U., 1964, 1971.
Bestor, Rollie R. (1969) BS, MS, U. of Wisconsin, Madison, 1954, 1958; EdD, Brigham Young U., 1969.
Blakemore, Connie L. (1978) BS, U. of Utah, 1960; MS, Brigham Young U., 1967; EdD, Temple U., 1984.
Bunker, Robert E. (1949) BS, Utah State U., 1937.
Call, C. Boyd (1960) BS, U. of Utah, 1950; MS, Brigham Young U., 1963; PhD, U. of Oregon, 1967.
Clarke, Mark S. (1982) BS, U. of Arizona, 1963; MS, EdD, Brigham Young U., 1964, 1971.
Conlee, Robert K. (1977) BS, MS, Brigham Young U., 1969, 1970; PhD, U. of Iowa, 1975.
Cryer, Walter (1964) BS, MS, U. of Illinois Medical, 1952, 1959; EdD, Brigham Young U., 1975.
Curtis, George (1985) BS, Southern Utah State Coll., 1971.
Durrant, Earlene (1973) BS, MS, EdD, Brigham Young U., 1962, 1963, 1975.
Edwards, R. LaVell (1962) BS, Utah State U., 1952; MS, U. of Utah, 1960; EdD, Brigham Young U., 1978.
Felt, Richard G. (1967) BS, MA, Brigham Young U., 1958, 1980.
Fisher, A. Garth (1969) BS, Brigham Young U., 1955; MA, Sacramento State Coll., 1966; PhD, U. of New Mexico, 1969.
Francis, Rulon S. (1963) BS, MS, Brigham Young U., 1952, 1967; PhD, U. of Utah, 1971.
French, Roger W. (1980) BS, U. of Minnesota, Minneapolis, 1956; MA, Memphis State U., 1958.
Harrison, Joyce M. (1969) BA, MA, California State U., Long Beach, 1964, 1966; EdD, Brigham Young U., 1973.
Hawkes, Nena Rey (1960) BS, Utah State U., 1954; MS, Brigham Young U., 1965; PhD, Union Inst., 1993.
Hirschi, Willard M. (1964) BS, Brigham Young U., 1956; MS, Arizona State U., 1960.
Hirst, Cyntha C. (1948) BA, U. of Utah, 1947; MS, U. of Washington, 1952; PhD, U. of Utah, 1974.
Jarman, Boyd O. (1969) BS, Brigham Young U., 1954; MS, EdD, U. of Oregon, 1959, 1965.
Jensen, Clayne R. (1964) BS, MS, U. of Utah, 1952, 1956; EdD, Indiana U., Bloomington, 1963.
Jones, J. Richard (1961) BS, MS, Brigham Young U., 1951, 1955; EdD, U. of Northern Colorado, 1967.
Leishman, Courtney M. (1962) BS, Utah State U., 1958; MS, EdD, Brigham Young U., 1962, 1976.
Lewis, Kathryn (1972) BS, Brigham Young U., 1955; MA, Long Beach State Coll., 1962; EdD, Brigham Young U., 1978.
McGown, Carl M. (1972) BS, MS, Brigham Young U., 1963, 1964; PhD, U. of Oregon, 1971.
Michaelis, Elaine (1960) BS, MS, Brigham Young U., 1960, 1962.
Osborne, James H. (1991) BS, U. of Utah, 1969.
Pella, Chris (1986) BS, Utah State U., 1966.
Pullins, Gary D. (1976) BA, MA, Brigham Young U., 1969, 1975.
Ramage, Thomas J. (1973) BS, MS, Utah State U., 1957, 1962.
Roundy, Elmo S. (1963) BS, MEd, Brigham Young U., 1953, 1956; EdD, U. of California, Los Angeles, 1965.
Schmidt, Kenneth (1983) BS, MS, U. of Utah, 1964, 1969.
Silvester, L. Jay (1969) BS, MS, Utah State U., 1959, 1970; EdD, Brigham Young U., 1976.
Tucker, Karl L. (1961) BS, MS, Brigham Young U., 1952, 1964.
Valentine, Ann (1966) BS, Slippery Rock State Coll., 1955; MS, Pennsylvania State U., 1961.
Vickers, Betty J. (1971) BS, Kent State U., 1955; MA, California State U., Los Angeles, 1960; EdD, Brigham Young U., 1976.
Wallace, Lu (1956) BS, Utah State U., 1954; MS, Washington State U., 1960.
Witbeck, Alan R. (1955) BS, MS, Brigham Young U., 1952, 1954.

School of Family Life

Richard B. Miller, Director
2086 JFSB, (801) 422-2069

Shirley Klein, Associate Director for Curriculum
2060B JFSB, (801) 422-3914

Randal Day, Director of Family Studies Center
1041D JFSB, (801) 422-6415

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the School of Family Life are open enrollment. However, special limitations apply for teaching majors.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Home and Family Living
BS	Family and Consumer Sciences Education
BS	Marriage, Family, and Human Development
Minors	Family Life
	Marriage, Family, and Human Development
	Gerontology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Marriage, Family, and Human Development
MS	Marriage and Family Therapy
MS	Youth and Family Recreation
PhD	Marriage, Family, and Human Development
PhD	Marriage and Family Therapy
PhD	Sociology with Emphasis in Studies of the Family

For more information see the BYU 2007–2008 Graduate Catalog.

School of Family Life

Minor Family Life (17–18 hours*)

Minor Requirements

1. At least one course in marriage, family, and human development and one course in home and family living.
2. Complete the following course:
   FamLf 100.
3. Complete two of the following courses:
   HFL 223 or 224; 371.
   MFHD 160, 210, 240; 333 or Psych 321; 334.
   Rel C 234.
4. Complete one of the following courses:
   Bus M 200.
   HFL 350, 472.
5. Complete two of the following courses:
   Anthr 431.
   HFL 100, 110, 340, 370, 489.
   Hist 319 or 378.
   Hlth 436.
   Nurs 288.
   Rel C 261.
   RMYL 301.

   Note: Any course not taken from item 3 may also fulfill the requirements for this category. One course cannot count in two categories.

*Hours include courses that may fulfill university core requirements.

Family Life (FamLf)

Undergraduate Course

100. Strengthening Marriage and Family: Proclamation Principles and Scholarship. (3:3:0) F, W, Sp, Su
Understanding, applying, and sharing principles of successful marriage and family life from the LDS proclamation on the family, using sacred and scholarly perspectives.

305. Family, School, and Community Partnerships. (2:2:0.5) F, W, Su Prerequisite for TESOL teaching minors: concurrent enrollment in El Ed 477R or Sc Ed 477R. There are no prerequisites for non-TESOL teaching students.
Standards, principles, policies, and processes for partnering with parents, families, schools, and communities in fostering and sustaining the development of children and youth.

Home and Family Living

The Discipline

The home is the basis of a righteous life, and no other instrumentality can take its place or fulfill its essential functions.

—Letter from the First Presidency to members of the Church throughout the world, February 11, 1999

Home and family living fosters study of the home as a sacred center for everyday family life and as the basis for a vital community. Theory, research, and practice are used to

- illuminate the value of everyday home life,
- foster wellness and provident living in meeting practical human needs such as feeding, housing, clothing, and financing the family,
- value the potential that practical human needs present for the moral and temporal development of family members,
- promote religious and community involvement that maintains and strengthens home and family as the fundamental unit of society, and
- prepare individuals as professional and everyday home and family educators.

Career Opportunities

Students can choose from two majors with distinct futures in the job market: home and family living or family and consumer sciences education. The first major prepares students for successful home and family living but also enables them to develop an area of interest that leads to a home-based business or other professional endeavor. The second major prepares students to be licensed by the State of Utah for teaching in secondary schools. This teaching license can be transferred to other states upon meeting their requirements. Students may also find employment in business and the USDA's Cooperative Extension program.

BS Home and Family Living (41–42 hours*)

Major Requirements

1. At least 15 hours of major credit must be taken in residency at BYU.
2. Complete the following:
   FamLf 100.
   HFL 100, 260.
   MFHD 210.
3. Complete five lower division courses from the following:
   HFL 102, 110, 180, 185R, 202, 210, 223, 224, 230, 282, 287.
   MFHD 160, 240.
4. Complete 9 credit hours from the following:
   HFL 319, 328, 329, 333, 335, 340, 360, 361, 370, 371, 380, 387, 395R, 397, 399R, 461, 472, 488R, 489.
5. Complete 6 additional hours from the following:
   Any HFL or MFHD courses not previously counted.
   Bus M 200, 372.
   Hlth 436.
   NDFS 100, 200, 201, 250, 251.
   PAS 103, 112.
   RMYL 301.

Note: Students who complete an internship (399R) or semester-away experience will have opportunities to meet with practicing professionals and enlarge their understanding of a particular workplace. Students are strongly encouraged to seek and complete an internship after completing a majority of the requirements for the major.

Possible Specializations

Though some students may desire a generalist approach, others may want to consider a specialization to further personal development or be positioned in a home industry or other professional endeavor. Some possibilities (using courses listed in items 3, 4, and 5 above) include:

Foods
HFL 110, 210, 340.
NDFS 100, 200, 250, 251.

Clothing Design and Construction
HFL 180, 185R, 282, 287, 380, 387, 397.

Housing/Interiors
HFL 102, 202, 230, 282, 328, 329.

Family Finance
Bus M 200, 372.
HFL 260, 360, 395R.

Community Involvement
Comms 100.
HFL 333, 370, 461, 489.
MFHD 498.
Soc 112.

*Hours include courses that may fulfill university core requirements.

BS Family and Consumer Sciences Education (87–90 hours*, including licensure hours)

Major Requirements

1. At least 15 hours of major credit must be taken in residency at BYU.
2. No D credit allowed in major courses.
3. Complete the following prerequisite course or equivalent experience:
   HFL 185R.
4. Complete the following:
   FamLf 100.
   HFL 100, 102, 110, 230, 260, 282, 287, 340.
   MFHD 210, 221, 222, 240.
   NDFS 100.
5. Complete at least two courses from the following:
   HFL 180, 380, 387, 397.
6. Complete one course from the following:
   HFL 202, 328, 329.
7. Complete one course from the following:
   HFL 335, 360, 361, 370, 371, 400R, 489.
   Hlth 436.
   NDFS 201.
8. Complete one course from the following:
   HFL 223, 224.
9. Complete two courses from the following:
   HFL 210.
   NDFS 200, 201, 250, 251.
10. Complete the Professional Education Component:
    a. Complete the following:
       CPSE 402.
       HFL 377.
       IP&T 286.
       Sc Ed 276R, 350, 353, 378.

       Note: Fingerprinting and FBI clearance must be completed before registration in HFL 377.
    b. Complete 12 hours from the following:
       Sc Ed 476R.

*Hours include courses that may fulfill university core requirements.

Home and Family Living (HFL)

Undergraduate Courses

100. Home and Family Living. (3:3:0) F, W, Sp, Su
Creating home as a sacred center for individual, marital, and family development; how temporal activities in the home have spiritual importance.

102. Introduction to Interiors. (3:3:0) F, W, Sp, Su
Interior design, emphasizing history and development of the American home.

110. Food Preparation in the Home. (2:1:2) F, W, Sp, Su
Principles of cooking and skill development in food preparation techniques. Lab required. Fee.

180. Clothing the Family. (3:3:0)
Comprehensive approach to consumer economics of clothing selection and care for individuals across the family life cycle and across cultures. Adapting clothing to meet diverse individual (physical and psychological) needs in the market-oriented economy.

185R. Beginning Clothing Construction. (3:3:5 ea.) F, W, Sp, Su
Basics of using a sewing machine for making apparel. Student-supplied materials required.

202. Design in the Home. (3:3:0) F, W, Sp Prerequisite: HFL 102.
Intermediate application of elements and principles of design in the home.

210. Advanced Food Preparation. (3:2:3) Prerequisite: HFL 110.
Lecture, readings, and intense practicum in food preparation, food preservation and storage, presentation, consumerism, equipment usage, and social/familial aspects of food. Lab required. Fee.

223. Preparation for Marriage. (3:3:0) F, W, Sp, Su
Factors related to quality relationships, mate selection, and the transition into marriage.

224. Marriage Enhancement. (3:3:0) F, W, Sp
Designed primarily for those who are married or engaged. Couples are encouraged to enroll together.

230. Housing the Family. (3:3:0) F, W
Social-psychological, economic, and political aspects of housing families; making selections that will enhance the quality of housing, increase productivity, and protect the health, safety, and well-being of the family across the life cycle.

260. Family Finance. (3:3:0) F, W, Sp, Su
Introduction to time value of money, budgeting, saving, credit, taxes, housing, insurance, and investing, emphasizing practical application in the home.

282. Textiles. (3:3:2) F, W
Natural and synthetic textile fibers, yarns, fabric construction, dyes, and finishes. Care and performance of textile fabrics for clothing and household use.

287. Intermediate Clothing Construction. (3:3:5) F, W, Sp Prerequisite: HFL 185R or equivalent sewing skills.
Assessing and executing various construction methods, including construction of several full-scale garments. Student-supplied materials required. Fee.

319. The Family in Fiction. (3:3:0)
Concepts, theories, and insights about family life as illustrated in various works of great literature.

328. History of Interior Design and Architecture 1. (3:3:0) F, W, Sp
History of interior design, architecture, and furnishings from ancient Egypt to beaux arts movement. French, English, and American design.

329. History of Interior Design and Architecture 2. (3:3:0) F
Furniture, interior design, and architecture from Industrial Revolution to present.

333. Religion in the Home. (3:3:0) F, W
How families of various faiths live their religion in their homes, with emphasis on practical, day-to-day home and family life rather than on abstract theology.

335. Household Equipment. (3:2:4)
Selection and performance of cookware and small and large household appliances; equipment function based on physical science principles; consumer use and energy conservation.

340. Family Meal Management. (3:2:3) F, W Prerequisite: HFL 110 or instructor's consent.
Organizing and managing time, energy, finance, and nutrition in planning, preparing, and serving family meals; ethnic and cultural diversity in etiquette and meal planning. Lab required. Fee.

360. Advanced Family Finance. (3:3:0) F, W Prerequisite: HFL 260.
Time value of money principles applied to family finance.

361. Money in the Family. (3:3:0) F, W, Su Prerequisite: HFL 260, 360.
Money attitudes and financial behaviors in the family—distinguishing between living high and living well. Mentored learning course.

370. Families in Communities. (3:3:0) F
How families successfully interact with their external contexts (school, church, workplace, legal system, health care, media, etc.) in patterns of mutual influence.

371. Work and Relationships in the Home. (3:3:0) F, W, Sp Prerequisite: MFHD 160.
Theoretical and practical implications of interplay between household work, family relationships, and human resource development.

377. Teaching Methods and Instruction in Family and Consumer Sciences Education. (3:6:0) F Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance; concurrent enrollment in Sc Ed 378.
Developing meaningful and engaging instruction for secondary students in family and consumer sciences education; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

380. History of Apparel. (3:3:0) W
Costume, clothing, and textiles as mediums for understanding the stages and states of individuals, families, and societies; apparel diversity and cultural identity.

387. Advanced Clothing Studies: Patternmaking. (3:3:5) F, Su Prerequisite: HFL 287 or equivalent sewing skills.
Flat pattern design, basic drafting, and basic draping for women's apparel. Student-supplied materials required.

395R. Special Topics in Home and Family Living. (1–3:Arr.:0 ea.) F, W, Sp, Su
Various topics in home and family living.

397. Advanced Clothing Studies. (3:3:5) F, W Prerequisite: HFL 287 or equivalent sewing skills.
Fitting skills and advanced clothing construction techniques. Fee.

399R. Academic Internship: Home and Family Living. (1–9:0:0 ea.) F, W, Sp, Su
Supervised on-the-job experience in areas related to home and family living.

400R. Teaching Practicum. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Qualified students provide instruction for pre-selected labs in HFL classes.

403R. Research/Creative Works Practicum. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: FamLf 100, HFL 100.
Research/Creative works experience in a project directed by a faculty.

461. The Family and the Law. (3:3:0) F, W, Sp Prerequisite: MFHD 160.
Legal environment of the family system, with emphasis on husband-wife and parent-child relationships, rights, and responsibilities.

472. Temporal Welfare in Families. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.
Assumptions, philosophy, and theory accounting for resource allocation, use, and meaning in families.

488R. Seminar: Home-Based Entrepreneurs. (1:1:0) F, W
Exploration of home-based businesses through interaction with practicing professionals.

489. The Family and Public Policy. (3:3:0) F
Investigation of public policy processes related to legislation and laws affecting home economics/home and family life. Funding and grantsmanship.

492R. Supervised Instructional Experience. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Course-related instructional experiences under supervision of faculty member.

Marriage, Family, and Human Development

The Discipline

The marriage, family, and human development (MFHD) program centers on theories, research, and practices related to optimal human development within the context of family life. It provides a life-course perspective by which human development, marriage, and family experience can be understood and improved. Provided with critical and current information about marriage, the family, and human development disciplines, students learn

how children, youth, adults, couples, and families develop, change, and face challenges throughout the life course (infancy, childhood, adolescence, adulthood). The teaching strategy of the marriage, family, and human development program reflects a strong commitment to improved critical thinking and better problem-solving skills as students become involved in mentored learning research and outreach experiences.

Career Opportunities

A bachelor's degree in MFHD is a broad liberal arts degree designed to assist students as they seek professional activity (as volunteers or for pay) in settings where knowledge of individual, marital, and family well-being is valued. A bachelor's degree in marriage, family, and human development prepares graduates to make significant contributions locally (e.g., helping one's own family, church, and local community) or professionally (e.g., working in the community services profession as a volunteer or paid professional for worldwide human and family service-based organizations).

Some MFHD graduates are employed in community action centers such as Head Start, marriage preparation and enrichment, family services, domestic violence programs, family support centers, child care centers, residential treatment centers, programs for the elderly, juvenile correction programs, and youth programs. Still other students prepare for volunteer-based community intervention (e.g., Habitat for Humanity, Red Cross, and the Muscular Dystrophy Association).

Additionally, MFHD is an excellent undergraduate preparation for those pursuing graduate school in marriage and family, marriage and family therapy, and human development research. Others seek professional certifications by obtaining advanced degrees in school counseling, clinical gerontology, or clinical psychology.

Some students receive a provisional Certified Family Life Educator (CFLE) credential along with a BS degree. Accredited by the National Council on Family Relations (NCFR), the CFLE prepares students for teaching in community settings but not in public, state-run schools and is an additional proof of specialization in the family field.

For students who are interested in teaching opportunities in public schools, a major in early childhood education is available through the Teacher Education Department in the David O. McKay School of Education. This certification qualifies individuals to teach kindergarten through third grade in public and private schools. The MFHD program provides foundation courses for those preparing to enter early childhood education programs (see Teacher Education Department for a list of these courses).

In addition, an early childhood emphasis is offered in marriage, family, and human development for students preparing for family life and/or vocations that do not require certification.

BS Marriage, Family, and Human Development

(48 hours*)

Major Requirements

1. At least 18 hours of upper-division major course work must be taken in residency at BYU.
2. Complete the following:
   FamLf 100.
3. Complete the following lower-division core courses:
   MFHD 160, 210, 290.
   Stat 221.
4. Complete 12 hours from the following upper-division core courses:
   MFHD 329, 331, 333, 334, 335, 351.
5. Complete 15 hours from the following upper-division elective courses:
   MFHD 349, 352, 353, 354, 355, 410, 451, 465, 498.
6. Complete 3 hours from the following:
   HFL 223, 224, 260, 370, 371, 461, 472, 489.
   Hlth 436.
   MFHD 221, 222, 240, 356, 395R, 420.
   RMYL 301.
7. Complete 3 hours from one of the following capstone courses:
   MFHD 399R, 403R, 480.

Possible Specializataions

Students wanting to focus in a particular area may consider one of the four possibilities listed below. (These are not separate degree tracks, but they are possible areas of focus.) Some courses may be in addition to the required 48 hours for the major.

Child and Family Services

1. Complete 12 hours from the following:
   MFHD 229, 333, 334, 335, 351.
2. Complete one of the following:
   HFL 461.
   MFHD 240, 356.
3. Complete the following:
   MFHD 399R, 465.

Early Childhood

Complete the following elective courses:
   Bus M 300.
   MFHD 221, 222, 240, 354, 355, 420.

Human Development

1. Complete the following:
   MFHD 240, 331, 333, 334, 351.
2. Complete five courses from the following:
   MFHD 349, 352, 353, 354, 355, 410.

Marriage and Family Life Educator

A recommended 0.5-credit block 395R seminar course will be offered yearly to introduce students to the certified family life educator (CFLE) program. Students desiring to become a provisional CFLE must fulfill requirements for ten areas of expertise:

Families in Society: HFL 370 and 371; or MFHD 354.
Internal Dynamics of Families: MFHD 160.
Human Growth and Development: MFHD 210, 334.
Human Sexuality: Hlth 436.
Interpersonal Relationships: HFL 223 or 224 or MFHD 329; MFHD 335.
Family Finance: HFL 260.
Parent Education and Guidance: MFHD 240.
Family Law or Public Policy: HFL 461 or 489.
Ethics: MFHD 480 or 498.
Family Life Education Methodology: MFHD 399R, 498.

*Hours include courses that may fulfill university core requirements.

Minor Marriage, Family, and Human Development

(18 hours*)

Minor Requirements

1. Complete the following:
   MFHD 160, 210; 290 or equivalent.
2. Complete 9 hours of any 300- and 400-level MFHD courses.

*Hours include courses that may fulfill university core requirements.

Minor (or Certificate) Gerontology (15 hours)

Minor Requirements

1. Course list must receive approval from the director:
   Dr. Rick Miller, 1041 JFSB, telephone: (801) 422-2860, fax: (801) 422-0225, e-mail: rick_miller@byu.edu
2. Complete 3 hours from one of the following:
   Hlth 496R.
   MFHD 399R.
   RMYL 496R.
3. Complete 6 hours from the following:
   Hlth 466.
   MFHD 334.
   RMYL 307.
   Soc 365.
4. Complete 6 hours from the following:
   Hlth 320, 496R.
   MFHD 210, 399R.
   NDFS 100.
   PDBio 205, 220.
   Psych 322, 342.
   RMYL 496R.
   Soc W 366, 496R, 567.
   Other electives approved by the academic advisor.

Marriage, Family, and Human Development (MFHD)

Undergraduate Courses

160. Introduction to Family Processes. (3:3:0) F, W, Sp, Su Honors also.
Ways of strengthening family life by understanding such family processes as generations, emotions, communication, and rituals.

210. Human Development. (3:3:0) Independent Study also.
Growth and development of the child from conception through adolescence; influences of family, peers, and schools.

221. Foundations of Developmentally Appropriate Practices in Programs for Young Children. (2:2:0) F, W Prerequisite: MFHD 210.
Historical, philosophical, organizational, and curricular issues related to developmentally appropriate practices in programs for young children.

Note: Due to enrollment constraints, MFHD 221 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

222. Practicum in Developmentally Appropriate Practices. (2:0:12) F, W Prerequisite: MFHD 210, 221; 240 or concurrent enrollment.
Initial practicum with young children to increase understanding of socialization and learning processes, to create meaningful learning opportunities, and to implement developmentally appropriate practices.

Note: Due to enrollment constraints, MFHD 222 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

240. Parenting and Child Guidance. (3:3:0) F, W Independent Study also.
Theories and skills related to quality parent-child relationships.

290. Critical Inquiry and Research Methods. (3:3:0) F, W Prerequisite: MFHD 160, 210, or instructor's consent.
Philosophies of critical inquiry. Principles of designing, conducting, and reporting social science investigations.

324. Teaching Children a Second Language. (3:2:1)
Strategies for teaching children a second language in the home and in the classroom. Practice teaching in lab school.

329. Forming Marital Relationships. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Critical analysis of literature regarding dating, spouse selection, and transition to marriage processes leading to successful marriage. Preparation for research and teaching in the field.

331. Infant Development in the Family. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Conception, prenatal development, pregnancy. Physical, cognitive, and social development of the first twenty-four months. Implications for guidance and care in the family.

333. (MFHD-Soc 318) Adolescent Development in the Family and Other Social Contexts. (3:3:0) F, W
Examining the developmental and social contexts of adolescents with emphasis on the importance of the family. Other contexts include peers, religion, community, schools, and cross-cultural issues.

334. Adult Development and Aging in the Family. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.
Adjustments to physical, emotional, social, and economic changes. Needs arising from changes in family relationships, living arrangements, and employment; retirement planning.

335. Family Adaptation and Resiliency. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Understanding family resiliency and building family strengths in normative transitions (birth, death, job) and nonnormative transitions (divorce, disability, remarriage, poverty, violence). Developing familial, social, religious, and instrumental resources to adapt positively to these transitions.

349. Biological Foundations of Human Development. (3:3:0) F, W Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Biological, genetic, and neurological foundations of human development and their interactions with family socialization processes.

351. Socialization Across Childhood. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Processes and sequences of social development across childhood.

352. Cognitive Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Development of mental abilities; effects of maturation and learning on memory, perception, attention processes, intelligence, social cognition.

353. Moral Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Moral traditions, normative ethics, psychological theories, social contexts and theories of social and moral development.

354. Cross-Cultural Family and Human Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Comparative study of familial, social, and other factors in development.

355. Language Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Philosophical, social, intellectual, and emotional contexts of language acquisition and usage.

356. Interactional Interviewing Skills in Family Sciences. (3:3:1) F, W, Sp
Interactional counseling techniques, issues, and theories; skill development in dyadic and family interaction observation. Lab required.

395R. Special Topics in Marriage, Family, and Human Development. (1–3:0:0 ea.) Independent Study also. Prerequisite: instructor's consent.
Topics include the single adult in family and society, duolingual parenting, and readings in family sciences.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: program coordinator's consent.
Supervised local and out-of-state professional experiences (45 hands-on hours required per credit). Opportunity to link academic learning with experience in field. Parallel and immersion programs available.

403R. Research Practicum. (0.5–3:Arr.:Arr. ea.) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Research experience in a project directed by a faculty member.

410. Advanced Issues in Human Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Evaluation of research on physical, mental, emotional, and social development.

420. Administering Programs for Young Children. (2:2:0) Prerequisite: MFHD 221, 222.
Strategies for planning and administering quality programs in settings for young children. Budgeting, staffing, accrediting, selecting equipment, etc.

451. Theories in Family Perspective. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
Introduction of major theoretical perspectives and of philosophical issues. Readings include representative papers applying theoretical and philosophic tenets.

465. Survey of Marriage and Family Enrichment/Therapy Approaches. (3:3:0) F Prerequisite: MFHD 160 or instructor's consent.
Theories and techniques. Professional family enrichment and therapy applied to couples and families.

480. Moral Foundations of Family Life. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.
How the moral domain is central to human experience; implications for family life of theories and practices that acknowledge agency and the ethical.

492R. Supervised Instructional Experience. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Course-related instructional experiences under supervision of faculty member.

498. Family Life Education. (3:3:0) Prerequisite: senior standing; instructor's consent.
Developing competencies in basic principles of family life education: curriculum design, development, implementation, and evaluation.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: 8 hours in marriage, family, and human development or department chair's consent.
Intensive study in applying principles of specified family sciences, subject matter in early childhood education, child development, family relationships, family resource management, or marriage/family therapy.

510. Seminar in Intellectual Development. (3:3:0) Prerequisite: MFHD 514.
Current theories and research on intellectual development.

511. Familial Influences on Children's Social Development. (3:3:0) Prerequisite: MFHD 331 or higher.
Current theories and research on social development, peer relations, and behavior. Familial/parenting effects as moderated by beliefs, genetics, gender, social cognitions, culture, child guidance, interventions.

512. Emotional and Moral Development. (3:3:0) Prerequisite: instructor's consent.
Research, theories, and educational implications; preschool through adulthood.

514. Theories of Human Development. (3:3:0) Prerequisite: MFHD 331 or higher.
Models and concepts in dominant contemporary developmental theories.

540. Family Economics. (3:3:0)
Economic functioning of household; role of income, employment, and household production as determinants of family living level.

542. Work and Family. (3:3:0)
Introduction to contemporary work/family issues. Framework for helping parents and managers deal effectively with work/family issues at work and home.

545. Family Financial Resource Management. (3:3:0) Sp; Su even yr. Prerequisite: instructor's consent.
Applying theories and principles in managing financial resources to meet needs of individuals and families.

550. (MFHD-Soc) Contemporary Family Theories. (3:3:0) Prerequisite: MFHD 451, Soc 310, 311; or equivalents.
Introduction to basic micro, macro, and processual approaches to study of the family; social and political theory on the family; philosophical issues and assumptions underlying family theory, research, and practice.

551. Fathering: Scholarship and Intervention. (3:3:0) Prerequisite: instructor's consent.
Quality fathering across cultures and in varied family circumstances. Historical changes in fathering; challenges to good fathering; effective interventions with fathers.

561. Seminar in Family Law. (3:3:0) Prerequisite: concurrent enrollment in HFL 461.
Intensive investigation of issues and concepts influencing legal aspects of marriage and family life.

566. Family Life Education in the University. (1–3:Arr.:0) Prerequisite: instructor's consent.
Delivering family life education in university settings. Working with a faculty mentor, making presentations, and preparing basic instructional materials.

567R. Practicum in Family Life Education. (1:1:0 ea.) Prerequisite: MFHD 566 or instructor's consent.
Supervised experience teaching family living courses in a university setting.

570. Paradigms in Family Process and Analysis. (3:3:0) Prerequisite: HFL 371 or equivalent.
Alternative perspectives on family management, governance, and participation, with emphasis on modernist/management vs. familial orientations affecting leadership, parenting, autonomy and choice, altruism and individualism.

591. Graduate Research Methods. (3:3:0) Prerequisite: MFHD 290, Stat 221; or equivalents.
Building on introductory knowledge, learning and exploring the quantitative research designs most commonly used in marriage, family, and human development studies.

595R. Special Topics in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: for marriage, family, and human development major; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Marriage and Family Therapy (MFT)

Undergraduate Courses

330. Preprofessional Preparation for Marriage and Family Therapy. (1:1:0)
Overview of profession, licensing, and application to graduate study.

395R. Special Topics in Marriage and Family Therapy. (1–3:0:0 ea.) Prerequisite: instructor's consent.
Current important topics in the profession of marriage and family therapy.

403R. Research Practicum. (1–3:Arr.:0 ea.)
Research experience with professor and undergraduate team.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: instructor's consent.
Training in delivery of and research about psychoeducational programs for couples and families.

590R. Readings in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: instructor's consent.
Discussions and reports of current readings.

595R. Special Topics in Marriage and Family Therapy. (1–2:2:0 ea.) Prerequisite: marriage and family therapy major status; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

School of Family Life Faculty

Professors

Beutler, Ivan F. (1981) BS, MS, Utah State U., 1969, 1970; MS, PhD, Purdue U., 1972, 1974.
Busby, Dean M. (2005) BA, U of Utah, 1986; MS, PhD, Brigham Young U., 1988, 1990.
Crane, D. Russell (1983) BA, California State U., Hayward, 1975; MS, PhD, Brigham Young U., 1978, 1979.
Day, Randal D. (1999) BS, MS, Brigham Young U., 1973, 1974; MS, U. of Wisconsin, Madison, 1975; PhD, Brigham Young U., 1979.
Dollahite, David C. (1993) BA, MS, Brigham Young U., 1983, 1985; PhD, U. of Minnesota, 1988.
Draper, Thomas W. (1982) BS, MS, Brigham Young U., 1971, 1973; PhD, Emory U., 1976.
Duncan, Stephen F. (2000) BS, U. of Utah, 1980; MS, Brigham Young U., 1985; PhD, Purdue U., 1988.
Feinauer, Leslie L. (1984) BS, Brigham Young U., 1968; MS, U. of Utah, 1969; PhD, Brigham Young U., 1981.
Galbraith, Richard C. (1975) BS, Brigham Young U., 1971; MS, PhD, Northwestern U., 1973, 1975.
Harper, James M. (1979) BS, MS, Brigham Young U., 1974, 1976; PhD, U. of Minnesota, Minneapolis, 1979.
Hart, Craig H. (1992) BS, MS, Brigham Young U., 1980, 1982; PhD, Purdue U., 1987.
Hawkins, Alan J. (1990) BS, MS, Brigham Young U., 1979, 1984; PhD, Pennsylvania State U., 1990.
Holman, Thomas B. (1985) BA, Utah State U.; MREd, PhD, Brigham Young U., 1976, 1981.
Larson, Jeffry H. (1987) BS, MS, Brigham Young U., 1971, 1974; PhD, Texas Tech. U., 1980.
Miller, Richard B. (1999) BS, MS, Brigham Young U., 1982, 1984; PhD, U. of Southern California, 1989.
Olson, Terrance D. (1974) BS, MS, Brigham Young U., 1967, 1969; PhD, Florida State U., 1972.
Stahmann, Robert F. (1975) BA, Macalester Coll., 1963; MS, PhD, U. of Utah, 1965, 1967.

Associate Professors

Barlow, Brent Alvin (1977) BS, MA, Brigham Young U., 1966, 1968; PhD, Florida State U., 1971.
Bean, Roy A. (2006) BA, U. of Utah, 1992; MS, PhD, Brigham Young U., 1995, 1997.
Burnham, Catherine (1992) BS, MEd, Brigham Young U., 1971, 1989; EdD, U. of Illinois, 1991.
Butler, Mark H. (1996) BS, MS, Brigham Young U., 1986, 1990; PhD, Texas Tech U., 1996.
Hill, E. Jeffrey (1999) BA, MA, Brigham Young U., 1977, 1984; PhD, Utah State U., 1995.
Israelsen, Craig L. (2004) BS, MS, Utah State U., 1983, 1984; PhD, Brigham Young U., 1990.
Klein, Shirley R. (1986) BS, U. of Arizona, 1966; MS, Brigham Young U., 1984, PhD, U. of Utah, 1990.
Nelson, Larry J. (2000) BS, MS, Brigham Young U., 1994, 1996; PhD, U. of Maryland, 2000.
Porter, Christin L. (1996) BS, Brigham Young U., 1990; MS, PhD, Purdue U., 1992, 1996.
Robinson, Clyde C. (1990) BS, MS, Brigham Young U., 1972, 1976; PhD, U. of North Carolina, Greensboro, 1982.
Roper, Susanne Olsen (1993) BS, MS, Brigham Young U., 1975, 1981; PhD, U. of Georgia, 1992.
Taylor, David A. (1978) BA, BA, MA, Brigham Young U., 1972, 1976, 1982.

Assistant Professors

Carroll, Jason S. (2001) BS, MS, Brigham Young U., 1996, 1998; PhD, U. of Minnesota, 2001.
Nelson, David A. (2000) BS, Brigham Young U., 1995; PhD, U. of Minnesota, 1999.
Padilla-Walker, Laura M. (2005) BS, Central Michigan U., 1999; MA, PhD, U. of Nebraska, Lincoln, 2001, 2005.
Yorgason, Jeremy B. (2005) BS, Brigham Young U., 1997; MS, Kansas State U., 2000; PhD, Virginia Polytechnic Inst. and State U., 2003.

Affiliated Faculty

Bahr, Stephen J., *Sociology*
Ballif-Spanvill, Bonnie, *Women's Research Institute*
Brinton, Bonnie, *Communication Disorders*
Call, Vaughn R. A., *Sociology*
Callister, Lynn C., *Nursing*
Christiaens, Glenda, *Nursing*
Doxey, Cynthia, *Church History and Doctrine*
Duncan, Dean, *Theatre and Media Arts*
Dyches, Tina T., *Psychology*
Forste, Renata T., *Sociology*
Freeman, Patti, *Recreation Management and Youth Leadership*
Fujiki, Martin, *Communication Disorders*
Heaton, Tim B., *Sociology*
Hill, Brian J., *Recreation Management and Youth Leadership*
Hudson, Valerie M., *Political Science*
Jaccard, Jerry L., *School of Music*
Layne, Christopher M., *Psychology*
Lindeman, Barbara B., *Recreation Management and Youth Leadership*
Mandleco, Barbara, *Nursing*
Marett, Kevin M., *Social Work*
Marshall, Elaine S., *Nursing*
Matheson, Kenneth, *Social Work*
Newell, Lloyd, *Church History and Doctrine*
Pehrson, K. Lynn, *Social Work*
Roby, Jini L., *Social Work*
Rudy, Jill Terry, *English*
Shumway, Jeffrey M., *History*
Slife, Brent D., *Psychology*
Smith, Timothy, *Psychology*
Walton, Elaine, *Social Work*
Wardle, Lynn W., *Law School*
Wells, M. Gawain, *Psychology*
Widmer, Mark A., *Health and Human Performance*
Wilder, Lynn K., *Psychology*

Emeriti

Allred, G. Hugh (1966) BA, MA, Brigham Young U., 1957, 1960; EdD, U. of Oregon, 1966.
Bahr, Kathleen S. (1970) BS, MS, Utah State U., 1968, 1970; PhD, Michigan State U., 1982.
Brasher, Ruth E. (1969) BS, Brigham Young U., 1951; MA, U. of Maryland, 1959; PhD, Utah State U., 1969.
Burr, Wesley R. (1969) BS, MS, Brigham Young U., 1960, 1961; PhD, U. of Minnesota, Minneapolis, 1967.
Cahoon, Owen W. (1970) BS, MS, Utah State U., 1963, 1964; DEd, Pennsylvania State U., 1970.
Cannon, Kenneth Lynn (1956) BS, Brigham Young U., 1935; MS, PhD, Iowa State U. of Science and Technology, 1948, 1954.
Childs, Margaret S. (1946) BS, Brigham Young U., 1939; MS, Oregon State U., 1949.
Devey, Ottella T. (1959) BS, MS, Brigham Young U., 1956, 1959.
Edwards, Kay P. (1974) BS, M.S, Utah State U., 1962, 1964; PhD, Cornell U., 1969.
Ellsworth, Carol (1969) BS, Colorado State U., 1951; MA, Columbia U., 1964; EdD, Brigham Young U., 1980.
Garrison, Carolyn (1970) BS, Oregon State U., 1961; MS, Iowa State U. of Science and Technology, 1971; PhD, Purdue U., 1978.
Hoopes, Margaret H. (1970) BS, Ricks Coll., 1953; MS, Brigham Young U., 1962; PhD, U. of Minnesota, Minneapolis, 1969.
Jorgensen, Eleanor (1949) BS, Brigham Young U., 1946; MS, Kansas State U., 1954; PhD, Texas Woman's U., 1965.
Knowles, Elmer M. (1962) BS, MS, Utah State U., 1949, 1950; PhD, Cornell U., 1952.
Lee, Evelyn Monson (1962) BS, MS, Montana State U., 1952, 1959.
Lewis, Stella D. (1956) BS, MHE, Brigham Young U., 1938, 1966.
Liechty, Elizabeth L. (1952) BS, Utah State U., 1948; MS, U. of California, Los Angeles, 1954.
Lind, Charlene (1964) BS, Utah State U., 1955; MA, U. of Maryland, College Park, 1961; PhD, U. of Wisconsin, Madison, 1974.
Mead, D. Eugene (1967) BA, U. of Oregon, 1956; MA, San Jose State Coll., 1963; EdD, U. of Oregon, 1967.
Moss, J. Joel (1961) BS, MS, Brigham Young U., 1948, 1949; PhD, U. of North Carolina, Chapel Hill, 1954.
Poduska, Bernard E. (1983) BA, MA, California State Coll., Fullerton, 1966, 1968; PhD, Brigham Young U., 1983.
Porter, Blaine R. (1955) BS, MA, Brigham Young U., 1947, 1949; PhD, Cornell U., 1952.
Price, Alvin H. (1966) BS, Brigham Young U., 1960; MA, PhD, U. of Minnesota, Minneapolis, 1963, 1966.
Rowley, Maxine Lewis (1979) BA, Brigham Young U., 1960; BA, U. of Utah, 1974; MS, Utah State U., 1979, PhD, Brigham Young U., 1989.
Scoresby, A. Lynn (1970) BS, MA, Brigham Young U., 1965, 1966; PhD, U. of Minnesota, Minneapolis, 1969.
Steineckert, Della N. (1970) BS, Brigham Young U., 1954; MA, Adams State Coll. of Colorado, 1963; PhD, Florida State U., 1976.
Taylor, Barbara J. (1957) BS, MS, PhD, Brigham Young U., 1957, 1960, 1971.
Thackeray, Renee (1973) BS, Brigham Young U., 1953; MS, Oregon State U., 1960.
Thompson, Mary J. (1974) BS, Brigham Young U., 1961; MA, Washington State U., 1974; PhD, Brigham Young U., 1999.
Vance, Barbara Jane (1967) BA, U. of Utah, 1956; MA, Brigham Young U., 1959; PhD, Stanford U., 1967.
Watson, Wendy L. (1993) BA, U. of Hawaii, 1973; MS, Brigham Young U., 1975; PhD, U. of Calgary, Canada, 1984.
Wright, Doris Lewis (1976) BS, Brigham Young U., 1973; MS, Utah State U., 1977.

Farsi

See Center for Language Studies.

Fijian

See Center for Language Studies.

Film

See Theatre and Media Arts section of this catalog.

Fine Arts

270R. European Fine Arts. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
Art, design, music, and theatre of host countries and other European cultures.

Finnish

See Department of Humanities, Classics, and Comparative Literature.

Food Science and Nutrition

See Nutrition, Dietetics, and Food Science section of this catalog.

French and Italian

Yvon Le Bras, Chair
3134 JFSB, (801) 422-2542

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of French and Italian are open enrollment.

The Discipline

The study of French or Italian language and literature sharpens analytical and communicative skills. Students develop proficiency in listening, reading, writing, and speaking, and they learn to use literature as a means to discover and broaden their understanding of culturally specific as well as universal issues and values.

Career Opportunities

Italian and French are valuable research and communication tools for students in music, art, history, European studies, international relations, library science, and comparative literature. Many have chosen a major or minor in Italian or French in addition to a second major or minor in an area such as accounting or business management, or as preparation for professional programs in public administration, business administration, organizational behavior, dentistry, law, or medicine.

Many of our students have opted for a career in government service, working with an embassy, the State Department, the CIA, and other government agencies.

Other students have gone into travel and tourism, working with tour agencies, airlines, major hotel chains, or resort communities.

The computer industry also provides employment opportunity for our graduates. Many computer companies have expanded into foreign markets and hire people who can translate computer and software instruction and sales publications in a foreign language.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	French Studies
BA	French Teaching
BA	Italian
Minors	French
	French Teaching
	Italian

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	French Studies
MA	Language Acquisition (French)

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

The Department of French and Italian strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Internships Abroad. The Department of French and Italian in association with the French Embassy's Cultural Services offers spring/summer internships in France in a variety of positions: businesses, corporations, industry, hospitals, research laboratories, national and local governments, cultural organizations, nonprofit agencies and nongovernmental organizations, hotels and tourism, etc. Job placements are made according to the student's language proficiency, previous work experience, field of study, and personal interest. Students may enroll for Fren 399R, 211R, 311R, or 411R, or other courses such as Fren 490R. The internship proves invaluable in strengthening language skills.

Oral Proficiency Interview. All French-teaching majors and minors and all Italian majors are required to enroll in Fren 491 or Ital 491 and have an oral proficiency interview (OPI). (French majors are encouraged to do so as well.) French teaching majors and minors are required to take the OPI before taking Fren 378. The results of the OPI are recorded on the student's transcript. The minimum rating of *advanced* is required of all *teaching* majors and minors. Appointments for the interviews are made through the department secretary.

When it is necessary to strengthen oral proficiency, students are encouraged to take conversation courses. They should also take advantage of the Foreign Language Student Residence, Study Abroad programs, summer internships abroad, and support materials in the Humanities Learning Resource Center, such as tapes, videos, and satellite broadcasts.

Instruction. All courses are taught in the target language unless indicated otherwise in this catalog.

French

General Information

Language Credit by Examination. A student enrolled full-time at BYU whose native language is not French may receive credit by special examination for French for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions.

The French Language for Credit Examination is administered by the French and Italian Department twice a year: in November during fall semester and in March during winter semester. Based on enrollment, the credit examination may be administered during spring and/or summer terms. Details about this examination will be given by the student's Fren 201, 202, or 321 teacher. Please note that students can test out of classes as follows, depending on a student's status:

Freshmen who start with French 201 can test out of:
Fren 101 and 102 (8 hours).

Freshmen or returned missionaries from Quebec or Creole-speaking missions, etc., who start with Fren 201 can test out of:
Fren 101, 102, and 211R (10 hours)

Returned missionaries from France, Belgium, Switzerland, etc., can test out of:
Fren 101, 102, 201, 211R, and 311R (16 hours)
For returned missionaries to be eligible to take the exam, they need to be enrolled in Fren 201 or 321.

Note: The above five classes are *not* part of a French major or minor. The first French minor class requirement is Fren 321.

Note: Fren 340 fulfills the GE Foreign Language option for returned missionaries from France, Belgium, and Switzerland. Fren 321 does not.

Accelerated Program. The department offers an accelerated course in beginning French (101 and 102) every fall and winter semester. These courses are offered on the block.

Foreign Language Student Residence. An excellent alternative to or preparation for foreign residency is offered through the Foreign Language Student Residence, where participants speak, eat, and live with a *French only* rule. This program, with numerous cultural opportunities, is available each semester to women and men who have completed at least one year of college French. Residents may also receive 2 hours of conversation credit per semester by enrolling in a specially designated section of 211R or 311R.

Study Abroad Programs. All students of French are encouraged to participate in a Study Abroad program. Study Abroad typically offers during spring and/or summer terms a language and civilization program in Paris, France. It provides an excellent opportunity for developing language proficiency and better understanding of the history and culture of France. Study Abroad also offers a semester-long program in Paris emphasizing general education courses.

BA French Studies (42–63 hours*)

Major Requirements

1. At least 15 major hours must be completed in residence at BYU.
2. Complete a minor (approximately 16–21 hours) or 15 hours of course work in an area approved by the major advisor. Courses must be approved before the senior year.
3. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
4. Complete two courses from the following:
   Fren 321, 322, 340.
5. Complete two courses from the following:
   Fren 361, 362, 363.
6. Complete five courses from the following:
   Fren 431, 432, 433, 445R, 452R, 453R, 454R, 455R, 456R, 457R, 490R, 495R.

Note: French majors can select Fren 445R, 490R, or Bus M 596R as one of the five required 400-level courses to count toward the major.

Recommended

Students who need to strengthen oral skills should enroll in Fren 211R, 311R, and 411R.

*Hours include courses that may fulfill university core requirements.

BA French Teaching (70–93 hours*, including licensure hours)

Major Requirements

1. Obtain application instructions by meeting with the Department of French and Italian French secondary education supervisor. Applications are accepted during the first block of each semester while student is enrolled in Sc Ed 276R.
2. At least 18 major hours must be completed in residence at BYU.
3. Complete an approved teaching minor (approximately 16–24 hours).
4. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
5. Complete the following:
   Fren 321, 322, 340, 361, 362, 377, 378, 431.

   Note: Fren 377 and 378 must be taken before student teaching.

   Note: Fingerprinting and FBI clearance must be completed before enrollment in Fren 378.
6. Complete two courses from the following:
   Fren 432, 433, 445, 452R, 453R, 454R, 455R, 456R, 457R, 490R, 495R.

   Note: Only one registration of 490R will count toward the major requirements.
7. Complete Fren 491 and have an oral proficiency interview (OPI) before enrolling in Fren 378. The rating will be recorded on the student's transcript. The required minimum OPI rating is *advanced—mid* before graduation.
8. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 379.
   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.

Note: The Department of French and Italian offers the following resources to strengthen oral language skills: conversation courses (Fren 211R, 311R, 411R), Foreign Language Student Residence, Study Abroad, and internships in French-speaking countries. Please refer to the specific program or course description for detailed information about these resources.

*Hours include courses that may fulfill university core requirements.

Minor French (18–33 hours*)

Minor Requirements

1. At least 9 minor hours must be taken in residence at BYU.
2. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
3. Complete the following:
   Fren 321, 322, 340, 361, 362.
4. Complete one course from the following:
   Fren 452R, 453R, 454R, 455R, 456R.

*Hours include courses that may fulfill university core requirements.

Minor French Teaching (24–39 hours*)

Minor Requirements

1. At least 12 minor hours must be taken in residence at BYU.
2. Complete the following prerequisites (or equivalent):
   Fren 101, 102, 201, 202.
3. Complete the following:
   Fren 321, 340, 377, 378, 431.

   Note: Fren 377 and 378 must be taken before student teaching.
4. Complete two courses from the following:
   Fren 361, 362, 363.
5. Complete Fren 491 and have an oral proficiency interview (OPI) before enrolling in Fren 378. The rating will be recorded on the student's transcript. The required minimum OPI rating is *advanced—low* before graduation.

Note: The Department of French and Italian offers the following resources to strengthen oral language skills: conversation courses (Fren 211R, 311R, 411R), the Foreign Language Student Residence, Study Abroad, or an internship in French-speaking countries. Please refer to the specific program or course description for detailed information about these resources.

*Hours include courses that may fulfill university core requirements.

French (Fren)

Undergraduate Courses

101. First-Year French, Part 1. (4:5:2)
Development of the four language skills: understanding, speaking, reading, and writing.

102. First-Year French, Part 2. (4:5:2) Prerequisite: Fren 101 or equivalent.
Continuation of French 101.

121. Intensive Reading in French. (1–4:Arr.:0) For students with little or no French.
Reading for research purposes, including reading skills in area of student's specialization or interest. Graduate students will be graded pass/fail. Undergraduates will receive letter grades. Conducted in English.

201. Intermediate French, Part 1. (4:5:2) Prerequisite: Fren 102 or equivalent.
Reading, writing, conversation, vocabulary building, and review of grammar.

202. Intermediate French, Part 2. (3:3:1) F, W, Sp, Su Honors also. Prerequisite: Fren 201 or equivalent.
Final course for GE Foreign Language requirement (except for returned missionaries); extensive reading in French literature and culture.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Fren 102 or equivalent. May be taken concurrently with Fren 201.

217. (Fren-Ital) French and Italian Cinema. (3:3:2)
Background for understanding and appreciating the best of motion picture art in France and Italy. Language of instruction is English; no knowledge of French or Italian required.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Fren 211R or instructor's consent. May be taken concurrently with Fren 340.

321. Advanced Grammar. (3:3:0) Recommended: Fren 202 or equivalent.
Systematic review of French grammar and syntax.

322. Advanced Composition. (3:3:0) Prerequisite: Fren 321 or concurrent enrollment.
Expository writing (narration, description, dialogue, explication de texte, etc.).

340. Introduction to Literary Analysis. (3:3:0) Recommended: Fren 321 or concurrent enrollment.
How to read French prose, drama, and poetry and apply methods of literary criticism. Capstone course for GE Foreign Language requirement for returned missionaries.

345. Francophone Culture. (3:1:3) Prerequisite: Fren 102 or equivalent.
Study Abroad only.

361. French Civilization from the Beginning to 1715. (3:3:0) Prerequisite: Fren 321. Recommended: Fren 322.
Historical survey of institutions, fine arts, and social conditions to the death of Louis XIV. Fulfills GE Arts and Letters elective.

362. French Civilization from 1715 to the Present. (3:3:0) Prerequisite: Fren 321. Recommended: Fren 322.
Historical survey of institutions, fine arts, and social conditions. Fulfills GE Arts and Letters elective.

363. Contemporary French Civilization. (3:3:0) F, W, Sp, Su Prerequisite: Fren 321.
Current cultural, political, and social trends and issues in France as well as the francophone world.

377. Introduction to French Language Teaching. (3:3:0) F Prerequisite: Fren 321; Sc Ed 276R (if a French teaching major).
Language acquisition theories and instructional practices specific to French language classrooms. Includes teaching phonological features and pronunciation. Lectures, demonstrations, and microteaching. Taught in French and English.

378. French Language Teaching Procedures and Practicum. (3:2:1) W Prerequisite: Fren 377; 491 with minimum rating of *advanced—low* on the French oral proficiency exam; fingerprinting and FBI clearance for students planning to do an internship or student teach in the public schools.
Designing and practicing instruction for French classes in secondary schools. Developing critical thinking and assessment skills. Two-thirds lecture, one-third practicum in public schools. Taught in French and English.

399R. Academic Internship: French Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience in French.

411R. Fourth-Year Conversation. (2:2:1 ea.) Prerequisite: Fren 311R or equivalent.

431. Introduction to French Linguistics. (3:3:0) Recommended: Fren 322, 340, 361, 362.
Subfields (phonetics, morphology, syntax, lexicology, semantics) and approaches (socio-linguistics, semiology, and pragmatics).

432. History of French. (3:3:0) Recommended: Fren 431 or concurrent enrollment.
Introduction to the diachronic study of French beginning with its roots in Latin.

433. Studies in French Linguistics. (3:3:0) W Recommended: Fren 431 or concurrent enrollment.
Advanced study of linguistic features such as phonetics and phonology, semantization, lexical development, morphology, and contrastive syntax.

445. Advanced Francophone Culture. (3:3:0) Sp, Su Study Abroad only. Prerequisite: Fren 321.
Research paper required.

452R. Studies in Period, Movement, and Theme. (3:3:0 ea.)
Various periods and movements (e.g., medieval, classicism, romanticism) or themes (e.g., Arthur, Faust). Topics vary.

453R. Studies in Genre. (3:3:0 ea.)
In-depth study of various genres (e.g., epic, novel, lyric, film) and problems of genre in French.

454R. Studies in Author. (3:3:0 ea.)
In-depth study of major French or Francophone authors (e.g., Rabelais, Moliere, Diderot, Balzac).

455R. Studies in Literary Theory. (3:3:0 ea.)
In-depth study of primary texts by contemporary literary theorists (e.g., Barthes, Genette, structuralism, etc.).

456R. Francophone Studies. (3:3:0 ea.)
Readings from major French-speaking writers from countries outside France, such as Canada, Africa, and the Caribbean.

457R. Studies in French Culture. (3:3:0 ea.) Alt yr. Prerequisite: Fren 361, 362, or 363.
In-depth study of French historical, political, and social issues or artistic trends.

490R. Individual Study in French. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Faculty-supervised instruction/research to fit individual needs of the advanced student. Terms must be established by contract and approved by chair.

491R. Senior Oral Proficiency Evaluation. (0:0:0)
Evaluation required of all French-teaching majors and minors before enrolling in Fren 378.

495R. Senior Seminar in French. (3:3:0) Recommended: Fren 321, 322, 340, 420, 421; or instructor's consent.
In-depth study of a limited area of literature, language, or criticism; content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)

Graduate Courses

For 500-, 600-, and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Italian

General Information

Language Credit by Examination. A student enrolled full-time at BYU whose native language is English may receive credit by special examination for Italian for which he or she has acquired the equivalent skill or knowledge. However, this is possible only if no university credit has been given through AP, CLEP, or transfer of equivalent credit from another university or other institutions.

The Italian Language for Credit Examination is administered by the French and Italian Department twice a year: in November during fall semester and in March during winter semester. Based on enrollment, the credit examination may be administered during spring and/or summer terms. Details about this examination will be given by the student's Ital 321 teacher.

Returned missionaries from Italy can test out of:
Ital 101, 102, 201, 211R, and 311R (16 hours)

For students to be eligible to take the exam, they need to be enrolled in Ital 321.

Note: The above five classes are *not* part of the Italian minor. The first class for the Italian minor is Ital 321.

Note: Ital 340 fulfills the GE Foreign Language option. Ital 321 does not.

Accelerated Program, Beginning: The department offers an accelerated course in beginning Italian (101 and 102) every fall and winter semester. These courses are offered on the block.

Foreign Language Student Residence. In addition to BYU's spring or summer term in Italy, intensive "live-in" experience is available in the Foreign Language Student Residence. Besides taking regular courses in the department, students participate in lectures, discussions, films, and related extracurricular activities under the supervision of native Italian head residents. Vital to the success of the program is the 24-hour *Italian only* rule whereby students use Italian language as their only means of communication while they are at home. Participants may receive 2 credit hours per semester by enrolling in Ital 211R, 311R, or 411R.

Study Abroad Program. All students of Italian are encouraged to participate in a Study Abroad program in Italy offered spring or summer term (usually every other year). This program provides excellent opportunities for developing language proficiency and understanding the rich culture of Italy.

BA Italian (45–66 hours*)

Major Requirements

1. At least 15 major hours must be completed in residence at BYU.
2. Complete a minor (approximately 16–21 hours) or 15 hours of course work in an area approved by the major advisor. Courses must be approved before the senior year.
3. Students may double-count Italian courses for the major or minor and another program.
4. Complete the following prerequisites (or equivalent): Ital 101, 102, 201, 202.
5. Complete the following core requirements: Ital 321, 322, 326, 340.
6. Complete six courses from the following: Ital 420, 421, 441, 442, 443, 444, 460, 495R.
7. Complete Ital 491 and have an oral proficiency interview (OPI) during the senior year. The rating will be recorded on the student's transcript. The desired minimum OPI rating is *advanced*.

*Hours include courses that may fulfill university core requirements.

Minor Italian (18–33 hours*)

Minor Requirements

1. At least 9 minor hours must be completed in residence at BYU.
2. Students may double-count Italian courses for the major or minor and another program.
3. Complete the following prerequisites (or equivalent): Ital 101, 102, 201, 202.
4. Complete the following: Ital 321, 322, 326, 340.
5. Complete two courses from the following: Ital 420, 421, 441, 442, 443, 444, 460, 495R.

*Hours include courses that may fulfill university core requirements.

Italian (Ital)

Undergraduate Courses

101. First-Year Italian, Part 1. (4:5:2)
Daily development of the four language skills: understanding, speaking, reading, and writing.

102. First-Year Italian, Part 2. (4:5:2) Prerequisite: Ital 101 or equivalent.
Continuation of Ital 101.

201. Intermediate Italian 1. (4:5:1) Prerequisite: Ital 102 or two years of high school Italian or equivalent.
Reading, writing, conversation, vocabulary building, and review of grammar.

202. Intermediate Italian 2. (3:3:0) Prerequisite: Ital 201 or equivalent.
Final course for GE Foreign Language requirement (except for returned missionaries); extensive reading in Italian literature and culture.

211R. Second-Year Conversation. (2:2:0 ea.) Prerequisite: Ital 102 or equivalent. May be taken concurrently with Ital 201.

217. (Ital-Fren) French and Italian Cinema. (3:3:2)
Background for understanding and appreciating the best of motion picture art in France and Italy. Language of instruction is English; no knowledge of French or Italian required.

311R. Third-Year Conversation. (2:2:0 ea.) Prerequisite: Ital 211R or instructor's consent. May be taken concurrently with Ital 321 or 340.

321. Advanced Grammar. (3:3:0) Prerequisite: Ital 202 or equivalent.
Intensive review of grammar; vocabulary building.

322. Advanced Composition. (3:3:0) Prerequisite: Ital 321 or concurrent enrollment.
Italian syntax and composition.

326. Italian Phonetics and Pronunciation. (3:3:0) Prerequisite: Ital 321 or instructor's consent.
General rules of pronunciation. Introduction to history of Italian language.

340. Introduction to Italian Literature. (3:3:0) Recommended: Ital 321.
Basic literary concepts and terms coupled with readings of Italian works from various genres and periods. Capstone course for GE Foreign Language requirement for returned missionaries.

399R. Academic Internship: Italian Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience in Italian.

411R. Fourth-Year Conversation. (2:2:0 ea.) Prerequisite: concurrent residency in the Foreign Language Student Residence.

420. Italian Civilization from the Beginning to 1600. (3:3:0) Recommended: Ital 340.
Survey of institutions, fine arts, and great writers that shaped the history of Italy from the barbarian invasions through the Renaissance. Fulfills GE Arts or Letters elective.

421. Italian Civilization from 1600 to the Modern Era. (3:3:0) Recommended: Ital 340.
Survey of institutions, fine arts, and great writers that shaped the history of Italy from the Baroque period to the modern era. Fulfills GE Arts or Letters elective.

441. Italian Literature of the Late Middle Ages and Renaissance. (3:3:0) Prerequisite: Ital 340.

442. Italian Literature of the Baroque and Enlightenment Periods. (3:3:0) Prerequisite: Ital 340.

443. Italian Literature of the Romantic Period. (3:3:0) Prerequisite: Ital 340.

444. Italian Literature of the Twentieth Century. (3:3:0) Prerequisite: Ital 340.

460. Dante's *Divine Comedy*. (3:3:0)
Intensive examination of Dante's major opus. Lectures in English with bilingual text. Italian majors and minors must read the work in the original for credit.

490R. Individual Study in Italian. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Assignments to fit individual needs of the advanced student. Not accepted for major or minor.

491. Senior Oral Proficiency Evaluation. (0:0:0)
Required of all majors during the senior year.

495R. Senior Seminar in Italian. (3:3:0) Prerequisite: Ital 340 or instructor's consent.
In-depth study of a limited area of literature, language, or criticism; content varies; requires research and writing.

499R. Honors Thesis. (1–6:0:0 ea.)

Romanian (Rom)

Undergraduate Courses

101. First-Year Romanian, Part 1. (4:5:2)
Basic language skills.

102. First-Year Romanian, Part 2. (4:5:2)
Basic language skills.

201. Second-Year Romanian. (4:5:2) Prerequisite: Rom 102 or equivalent experience.
Conversation vocabulary building; reading and writing skills, emphasizing writing.

211R. Second-Year Romanian Conversation. (2:2:0) Prerequisite: Rom 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Romanian Conversation. (2:2:0) Prerequisite: Rom 211R or equivalent experience.
Advanced conversational skills.

340. Introduction to Romanian Literature and Culture. (3:3:0) For returned missionaries or others with extensive Romanian language experience. On dem. Prerequisite: foreign residence experience in Romania.
Required course for obtaining language credit by examination. Culminating course for GE Foreign Language requirement.

French and Italian Faculty

Professors
Decoo, Wilfried (2000) BA, U. of St. Ignatius, Belgium, 1967; MA, Ghent State U., Belgium, 1969; PhD, Brigham Young U., 1974.
Sowell, Madison U. (1979) BA, Brigham Young U., 1975; MA, PhD, Harvard U., 1976, 1979.

Teaching Professors
Noble, Cinzia D. (1980) BA, Brigham Young U., 1978; Dott. in Lett., G. D'Annunzio, Italy, 1979.
Thompson, Chantal P. (1973) DUEL, U. of Rennes, France, 1968; BA, MA, Brigham Young U., 1970, 1972.

Associate Professors
Cropper, Corry L. (1998) BA, Brigham Young U., 1993; MA, PhD, U. of Illinois, Urbana, 1995, 1998.
Hurlbut, Jesse D. (1994) BA, Brigham Young U., 1980; MA, U. of California, Santa Barbara, 1982; PhD, Indiana U., 1990.
Klein, Ilona (1994) Dott. in Lett., U. of Rome, Italy, 1981; MA, PhD, U. of Wisconsin, Madison, 1982, 1986.
Le Bras, Yvon R. (1993) BA, MA, U. of Rennes, France, 1970, 1972; MA, Brigham Young U., 1972; PhD, Laval U., Canada, 1992.
Lee, Daryl P. (1997) BA, Brigham Young U., 1992; MA, MPhil, PhD, Yale U., 1993, 1995, 1999.
Olivier, Marc L. (1998) BA, Brigham Young U., 1991; MA, PhD, U. of Washington, 1993, 1999.
Sprenger, Scott M. (1993) BA, MA, U. of Washington, 1983, 1986; MA, Johns Hopkins U., 1990; PhD, Emory U., 1995.
Unlandt, Nicolaas G. W. (1990) BA, MA, DLitt, U. of Amsterdam, Netherlands, 1983, 1985, 1992.

Assistant Professors
Erickson, Robert (2003) BA, Brigham Young U., 1971; MA, Middlebury Coll., 1975; PhD, Brigham Young U., 2000.
Matthies, R. John (2005) BA, MA, PhD, U. of Washington, 1995, 1998, 2005.
Sprenger, Anca (2005) BA, Universitatea Bucuresti, 1984; DEA, Université de Paris III, 1991; PhD, U. of Southern California, 1997.

Affiliated Faculty
Bush, Michael D. (1992) BA, Brigham Young U., 1972; MBA, U. of Missouri, 1976; PhD, Ohio State U., 1983.

Emeriti
Ashford, Josette B. (1969) BA, PhD, Brigham Young U., 1967, 1972.
Brown, Thomas H. (1960) BA, Brigham Young U., 1955; MA, PhD, U. of Illinois, 1957, 1960.
Lambert, L. Gary (1969) BA, U. of California, Berkeley, 1963; MA, U. of California, Santa Barbara, 1965; PhD, Rice U., 1969.
Slade, J. Keith (1963) BA, U. of Arizona, 1959; MA, Brigham Young U., 1960.
Turner, Norman C. (1970) BA, MA, Brigham Young U., 1957, 1958; PhD, Syracuse U., 1962.

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See Center for Language Studies.

Genealogy

See History and Church History and Doctrine sections of this catalog.

Geography

J. Matthew Shumway, Chair
690-B SWKT, (801) 422-2707

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Geography are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Geography offers a variety of programs centered around spatial analysis and tailored, so far as possible, to meet the future needs of individual students. Our modern computer laboratory allows students to gain practical experience with geographical information systems (GIS), remote sensing, cartography, and other programs in planning, urban, travel, and population studies.

Career Opportunities

Graduates are employed in a wide range of both private and governmental positions. Job titles include geographer; teacher of geography; city or regional planner; cartographer; photo interpreter; commodities and industrial location analyst; intelligence, travel industry, or environmental and GIS specialist; and many others.

Skills in spatial analysis make geography a valuable minor or supporting field for many other disciplines.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Geography
- Emphases
  - Geographic Information Systems
  - Geospatial Intelligence
  - Global Studies
  - Physical Environment Studies
  - Travel and Tourism Studies
  - Urban, Rural, and Environmental Planning

BS Geography Teaching

Minors
- Geographic Information Systems
- Geography
- Geography Teaching
- Travel and Tourism Studies
- Urban, Rural, and Environmental Planning

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Geography

For more information, see the BYU 2007–2008 Graduate Catalog.

General Information

1. The Department of Geography offers one major with seven emphases. The emphases are designed to enable students to gain an appreciation of our world as well as prepare them for either a career or graduate school. All students are required to take a set of core courses that emphasize basic geographic concepts and ways of knowing that are common to all seven emphases. These courses prepare students for specialization in upper-division courses. Required core courses include Geog 100, 101, 120, 130, 211, 212, 222, and Stat 221.

   Geography at Brigham Young University focuses on our interdependent world: the spatial relationships between the physical landscape, diverse societies, and current events. The geography major at Brigham Young University nourishes a sense of curiosity about the world around us, a desire to serve our local and global communities, and the skills necessary to solve significant problems that are inherently spatial.

   Hundreds of students major in geography to prepare for a professional career or graduate study, or just because of an interest in exploring and understanding the world around them. We emphasize both technical and critical thinking skills, including geographic information systems (GIS) and remote sensing, statistics, data collection, interpretation, and communication using the written and spoken word and visual data display (maps, charts, and graphs).
2. Prerequisite: all students admitted to one of the geography majors listed above must complete the following courses within one year of declaring a major:
   Geog 100, 101, 120, 130, 211.
3. Exit assessment and exit interview: Students must complete an exit assessment and exit interview during their final semester no later than one month before graduating. Both are offered online. The assessment is meant to evaluate the department's program goals and student learning outcome. The interview is a set of qualitative questions about the student's experience in the department. Although both the interview and assessment are formal requirements, the results are anonymous and will not be part of the student's academic records.

BS Geography: Geographic Information Systems Emphasis (61–62 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 222.
   Stat 221.
2. Complete one physical geography course from the following:
   Geog 303, 304, 305.
3. Complete one regional course from the following:
   Geog 245, 250, 255, 260, 265, 271, 272, 273, 285.
4. Complete one human geography course from the following:
   Geog 306, 331, 336, 341, 346, 347.
5. Complete the following major courses:
   Geog 213, 217, 219, 311, 312, 313.
6. Complete one course from the following:
   CHum 287.
   C S 142.
7. Complete two courses from the following:
   Geog 317, 411, 412, 413, 414.
8. With the approval of an advisor, complete a capstone course from the following (2 hours minimum required):
   Geog 399R, 415R, 495R, 501R, 510, 521R.

9. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography: Geospatial Intelligence Emphasis (60–62 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 213, 222, 271, 313, 331, 341.
   Stat 221.
2. Complete one course from the following GIS courses:
   Geog 217, 219, 311, 312, 317, 412, 413.
3. Complete 6 hours from the following regional courses:
   Geog 255, 265, 272, 273, 285.
4. Complete 6 hours from the following physical geography courses:
   Geog 303, 304, 305.
5. Complete 6 hours from the following:
   Aeros 410, 411.
   Hist 240, 241, 331, 342, 346, 348.
   MESA 201, 350.
   PI Sc 348, 350, 357, 377, 378, 381, 385, 388, 452, 458, 471, 474.
6. Complete the following:
   Geog 441R.
7. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography: Global Studies Emphasis (37 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212.
2. Complete one physical geography course from the following:
   Geog 303, 304, 305.
3. Complete three regional courses from the following:
   Geog 245, 250, 255, 260, 265, 271, 272, 273, 285.
4. Complete three human geography courses from the following:
   Geog 306, 331, 336, 341, 346, 348.
5. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography: Physical Environment Studies Emphasis (54–56 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 222.
   Stat 221.
2. Complete one regional course from the following:
   Geog 245, 250, 255, 260, 265, 271, 272, 273, 285.
3. Complete one human geography course from the following:
   Geog 331, 336, 341, 346.
4. Complete the following major courses:
   Biol 150.
   Geog 303, 304, 307, 313.
5. Complete one course from the following:
   Geog 305.
   Geol 411.
6. Complete two courses from the following:
   Biol 350.
   Geog 306, 310, 311, 312, 414, 423.
7. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415R, 495R, 501R, 510, 521R.
8. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography: Travel and Tourism Studies Emphasis (43 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 250.
   Stat 221.
2. Complete one regional course from the following:
   Geog 245, 255, 260, 265, 271, 272, 273, 285.
3. Complete the following major courses:
   Bus M 340.
   Geog 347, 348.
   RMYL 304.
4. Complete two courses (6 hours) from the following:
   Geog 306, 310, 349, 399R, 495R.
   Hist 369.
   RMYL 320 (or 371).

   Note: Only one RMYL course may be used to fill this requirement.
5. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography: Urban, Rural, and Environmental Planning Emphasis (54–59 hours*)

Major Requirements

1. Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 222.
   Stat 221.
2. Complete one physical geography course from the following:
   Geog 303, 304, 305.
3. Complete one regional course from the following:
   Geog 245, 250, 255, 260, 265, 271, 272, 273, 285.
4. Complete the following major courses:
   Geog 306, 310, 336, 346, 410.
5. In consultation with an advisor, complete a minimum of four courses from the following:
   Geog 213, 219, 307, 311, 312, 313, 414, 421R, 422, 423.

   Note: Some courses may require prerequisites.

6. With the approval of an advisor, complete a capstone course from the following:
   Geog 399R, 415R, 421R, 495R, 501R, 510, 521R.
7. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

BS Geography Teaching (87–93 hours*, including licensure hours)

Major Requirements

1. A teaching minor is required for licensure (approximately 16–21 hours).
2. Prerequisites: Complete the following core courses:
   Geog 100, 101, 120, 130, 211, 212, 222, 250, 331.
   Stat 221.
3. Complete two regional courses from the following:
   Geog 245, 255, 260, 265, 271, 272, 285.
4. Complete three systematic courses from the following:
   Geog 303, 304, 305, 306, 310, 312, 313, 336, 341, 346, 347, 348, 501R.
5. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 377R, 378, 379.

      Note: Fingerprinting and FBI clearance must be completed prior to enrollment in ScEd 276R.

   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.
6. Complete exit assessment and exit interview during final semester, no later than one month before graduation.

*Hours include courses that may fulfill university core requirements.

Minor Geographic Information Systems (20–23 hours)

Minor Requirements

1. Complete the following:
   Geog 211, 212, 312, 412.
2. Complete three courses from the following:
   Geog 213, 217, 219, 313, 411, 413.

Minor Geography (18 hours)

Minor Requirements

1. Complete the following :
   Geog 101, 120, 130, 211, 212.
2. Complete 3 hours of electives. Electives cannot include Geog 222, 399R, 493R, or any Geog 500 or above courses.

Minor Geography Teaching (18 hours)

Minor Requirements

1. Complete the following:
   Geog 101, 120, 130, 211, 250.
2. Complete 3 hours of electives. Electives cannot include Geog 222 or 223; 399R, 493R, or any Geog 500 or above courses.

Note: The geography teaching minor is intended for students who are pursuing secondary education licensure through the David O. McKay School of Education.

Minor Travel and Tourism Studies (19 hours)

Minor Requirements

1. Complete the following:
   Geog 120, 347, 348.
2. Complete two courses from the following:
   Bus M 340.
   Geog 130.
   Hist 369.
   RMYL 304, 371.
3. Complete one regional course from the following:
   Geog 245, 250, 255, 260, 265, 271, 272, 285.

Minor Urban, Rural, and Environmental Planning (19 hours)

Minor Requirements

1. Complete the following core courses:
   Geog 212, 310, 410.
2. Complete two of the following systematic courses:
   Geog 306, 307, 336, 346.
3. Complete two of the following applied planning courses:
   Geog 421R, 422, 423.

Geography (Geog)

Undergraduate Courses

100. The Geographic Approach. (1:1:0) Prerequisite: major status.
Overview of the discipline of geography and the faculty and geography major at BYU.

101. Global Environment: Understanding Physical Geography. (3:3:0) F, W, Sp, Su Independent Study also.
Physical environment, distribution and interrelationships of climates, landforms, ecosystems and their human significance.

110. Landscapes of Disaster: An Introduction to Natural Hazards. (3:3:0) F, W, Sp
Exploring natural and social science of disturbances by analyzing causes, consequences, and role of human behavior in causing and mitigating natural disasters.

120. Geography and World Affairs. (3:3:0) F, W, Sp, Su Independent Study also. Honors also.
Survey of the world, stressing geography of major political regions.

130. Introduction to Human Geography. (3:3:0) F, W, Alt. Sp, Su term
Culture distributions and their relationship to existing geographic phenomena.

211. Map Use and Interpretation. (3:2:2) F, W, Sp or Su
Maps as tools for spatial analysis of problems in physical and cultural geography.

212. Introduction to Geographic Information Systems. (3:2:1) F, W, Sp or Su
Concepts in the use of small- and large-scale digital map data, emphasizing landscape interpretation and feature description.

213. Earth Observation and Image Interpretation. (3:2:2) F, W
Principles of earth observation: primarily air photo/large-scale satellite imagery interpretation, basic field methods, photogrammetry.

217. Programming for Geographers. (4:4:0) F Prerequisite: C S 142 or equivalent.
Object-oriented analysis of geographic information using Visual Basic.

219. Global Positioning Systems and Geodesy. (2:2:0) F Prerequisite: Geog 211 or instructor's consent.
Earth coordinate systems, map projections, and global positioning system methods.

222. Quantitative Research and Reasoning. (3:3:0) F, W Prerequisite: Stat 221.
Organizing, acquiring, and using quantitative geographic data for research purposes within the context of the scientific method; learning and applying research techniques and statistical methods in individual geographic projects.

245. Geography of Utah. (3:3:0) W
Exploring geography of Utah. Topics include land forms, climate, agricultural and recreational economics, historical migration, Mormon cultural landscape, ethnic patterns, and rural-urban contrasts.

250. United States and Canada. (3:3:0) F, W Independent Study also.
Analysis of the natural environment, historical development, cultural patterns, economic systems, and political structures of geographic regions.

255. Middle and South America. (3:3:0) W
Environmental, cultural, economic, and political parameters of Latin American societies.

260. Europe. (3:3:0) F
Systematic approach to physical base, social and political problems, economic issues, and regional summary.

265. Russia and the Former Soviet Union. (3:3:0) W
Physical features, resources, political issues, economy and industries, population concerns, and role in world affairs.

271. Middle East. (3:3:0) F even yr.
Physical and cultural geography of Southwest Asia and North Africa, emphasizing the cultural mosaic, geopolitics, environment, and resources of the region.

272. East Asia. (3:3:0) W odd yr.
Region of monsoon Asia and its basic human (demographics, nations and ethnic groups, settlement patterns, religious beliefs, transportation and communication systems, political structures) and physical geographic characteristics (land forms, physiography, climatic characteristics, and natural resources).

273. Southeast Asia. (3:3:0) W alt yr.
Fundamental issues of geography relating to Southeast Asia, including the extraction and marketing of natural resources, economic development, neighborly relations, and how diffusion has influenced the unique cultural, religious, and linguistic characteristics of the region.

285. Africa South of the Sahara. (3:3:0) F
Geographical analysis focusing on resource management, political issues, development, environmental problems, economic development, and urban-rural change; case studies from selected countries.

303. Biogeography. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Broad-scale distribution of plants and animals. Theoretical and practical applications to conservation and effects of global environmental change.

304. Geography of Climates. (3:3:0) W Prerequisite: Geog 101 or instructor's consent.
Elements, controls, distribution, and classification of the earth's climates.

305. Geography of Landforms. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Elements of landforms: distributions and cultural significance.

306. Public Land Conservation. (3:3:0) F Prerequisite: Geog 101 or instructor's consent.
Environmental and social geography of public lands; analyzing historical, planning, management, and ecological issues.

307. Landscape Ecology. (3:3:0) Prerequisite: Geog 101 or instructor's consent.
Interaction between spatial patterns and spatial processes in an ecological context. Methods, theories, and practical applications of landscapes at various scales.

310. Principles of Land Use Planning. (3:3:0) F
Land use concepts, practical and theoretical problems, activities, and techniques.

311. Geographic Data Management. (3:3:0) W Prerequisite: Geog 212 or equivalent.
Nature of geographic information and its practical management in GIS; design of GIS databases, data collection from primary and secondary sources, manipulating data in preparation for analysis, and data exploration.

312. Cartographic Design. (4:2:4) F Prerequisite: Geog 211.
Graphic perception, layout, typography, color, statistical methods, and symbolization of thematic maps through computer-aided techniques.

313. Remote Sensing I. (3:3:0) Prerequisite: Geog 211, 212.
Introduction to airborne and spaceborne sensors, including characteristics and image acquisition. Emphasizes land cover mapping applications appropriate for environmental monitoring.

317. Analytical Cartography. (4:4:0) W Prerequisite: Geog 217.
Geocoding, spatial data representation, spatial algorithms, and map-based transformations.

331. Economic Geography. (3:3:0) F, Alt. Sp, Su term
Introduction to economic processes and spatial patterns, emphasizing theoretical approaches, locational strategies, and changing economic land-use patterns.

336. Geography of Urban Environment. (3:3:0) F
Urban patterns, city structures, and spatial analysis of cities as they affect their residents.

341. Political Geography. (3:3:0) F, W
Spatial analysis of global politics; focus on geopolitics, territory and conflict, nationalism, and the politics of resources.

346. Population Geography. (3:3:0)
Spatial perspective on wide field of population studies, focusing on distribution, development, structure, and movement of populations, emphasizing basic demographic measures.

347. Tourism: A Conceptual Framework. (3:3:0) F, Sp Independent Study also.
Introduction to tourism as a field of study; four elements of tourism: dynamic, service, functional, and consequential.

348. Tourism: Patterns and Analysis. (3:3:0) Independent Study also.
Patterns in domestic and international tourism; interrelationship between geography and tourism in understanding the patterns and their impact.

349. Global Adventure Travel. (3:3:0) F
Historical and emerging trends in global adventure travel and tourism. Detailed case studies selected from across world regions.

399R. Academic Internship. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
On-the-job experience. No more than 3 hours total in cooperative education may be counted in major.

410. Practices of Land Use Planning. (3:3:0) W Prerequisite: Geog 310.
Applications of methods and techniques commonly used in the land use planning process, emphasizing data collection and analysis, fieldwork, and writing skills.

411. Issues in Computer Cartography. (3:3:0) W Prerequisite: Geog 312 or equivalent.
Current techniques for compilation, integration, and display of digital map data.

412. Problem Solving with Geographic Information Systems. (3:3:1) F Prerequisite: Geog 311 or instructor's consent.
Solving practical geographic problems and performing scientific research using raster and vector analysis tools in GIS.

413. Remote Sensing 2. (3:3:0) Prerequisite: Geog 313.
Computer processing of low-altitude and satellite images for geographic analysis of physical and cultural phenomena on earth.

414. Applied Urban Environmental Modeling. (3:3:0) W Prerequisite: Geog 212, 213, 313.
Complexities of urban environment through use of geographic techniques, including remote sensing, GIS, GPS, aerial photo and map interpretation, and fieldwork. Modeling human impact on the physical environment by examining local case studies and completing group projects. Developing and building technical skills as tools in understanding the urban environment.

415R. Geographic Field Methods. (1–3:Arr.:0 ea.)
Learning different methods used by geographers in the field through hands-on involvement in real faculty research.

421R. Comprehensive Planning. (2–3:Arr.:0 ea.) W Prerequisite: Geog 310, 410.
Assessing problem and issue identification, goal formulation, data gathering, synthesis and summary, plan concept and format, and public policy adoption while writing a general plan for a rural community in Utah.

422. Principles of Urban Design. (2:2:0) F Prerequisite: Geog 310, 410.
Theories and principles of urban design emphasizing specific design criteria. Planning and design tools used within the U.S. by local government. Basic principles of architecture and landscape architecture. Field trips.

423. Planning for Unique and Sensitive Lands. (2:2:0) W Prerequisite: Geog 310, 410.
Unique aspects of land affecting land-use planning positively or negatively depending on sensitivity of design. Landscape ecological principles introduced and examined for usefulness in land-use planning.

441R. Seminar in Geography and Geospatial Intelligence. (1–3:Arr.:0 ea.) F, W
Capstone seminar for students in geospatial intelligence emphasis, emphasizing synthesis of material learned in the major and applying such knowledge and skills through a research project.

493R. Special Problems. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: geography major or departmental approval.

495R. Mentored Research. (1–3:Arr.:0 ea.) F, W, Sp, Su
Participating in research integrating material learned in major. Emphasizes individual or collaborative research and creative thinking through active learning and reflective analysis.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Seminar in Geography. (1–3:Arr.:0 ea.)
Detailed investigation of selected systematic and regional geographic topics.

503. Geographic Information Systems. (4:3:1) For nonmajors who have not taken Geog 211 or 212 or equivalent. Prerequisite: graduate standing.
Using geographic information for solving advanced spatial problems. Introduction to using and producing maps and computer-based geographic information systems (GIS) as geographic tools. Hands-on research applications in the students' disciplines.

510. Advanced Urban Dynamics and Planning. (3:3:0) W even yr. Prerequisite: Geog 310, 410, or equivalent.
Urban geography and land use planning, emphasizing urban morphology, land use patterns, and spatial analysis; critical evaluation of models and theories.

521R. Geographic Information Practicum. (3:3:0) F, W, Sp Prerequisite: GIS major status; Geog 311, 312, 313, 317; Geog 222 or 223; one 400-level GIS course.
Integration of various geographic technologies to solve a practical problem. Advanced topics in GIS, remote sensing, cartography, and programming as needed.

599R. Academic Internship. (1–3:Arr.:Arr. ea.)
On-the-job experience. No more than 3 hours in cooperative education may count toward major requirements.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Geography Faculty

Professors

Jackson, Richard H (1969) BS, MS, Brigham Young U., 1965, 1966; PhD, Clark U., 1970.
Shumway, J. Matthew (1991) BS, MA, Brigham Young U., 1984, 1987; PhD, Indiana U., Bloomington, 1991.

Associate Professors

Davis, James A. (1990) BS, Brigham Young U., 1978; MA, California State U., Fullerton, 1987; PhD, Arizona State U., 1993.
Emmett, Chad F. (1992) BA, Utah State U., 1979, MA, Brigham Young U., 1983; PhD, U. of Chicago, 1991.
Hardin, Perry J. (1988) BS, MA, Brigham Young U., 1982, 1984; PhD, U. of Utah, 1989.
Otterstrom, Samuel M. (1997) BS, MS, Brigham Young U., 1990, 1994; PhD, Louisiana State U., 1997.

Assistant Professors

Bekker, Matthew F. (2001) BA, Brigham Young U., 1994; MA, Penn State U., 1996; PhD, U. of Iowa, 2002.
Durrant, Jeffrey O. (1999) BS, MS, Brigham Young U., 1995, 1996; PhD, U. of Hawaii, 2001.
Gluch, Renee (2001) BS, MA, PhD, U. of Utah, 1990, 1998, 2003.
Jackson, Mark W. (2000) BS, MS, Brigham Young U., 1996, 1997; PhD, U. of South Carolina, 2001.
Plewe, Brandon S. (1997) BS, Brigham Young U., 1992; MS, PhD, State U. of New York at Buffalo, 1995, 1997.

Emeriti

Grey, Alan H. (1964) BA, Brigham Young U., 1959; MA, PhD, U. of Wisconsin, Madison, 1960, 1963.
Hinckley, Thomas K. (1972) BA, Brigham Young U., 1958; MA, U. of Pittsburgh, 1960; PhD, U. of Western Ontario, Canada, 1979.
Horiuchi, Russell N. (1961) BA, Brigham Young U., 1953; MA, U. of California, Berkeley, 1958; PhD, U. of Washington, 1975.
Hudman, Lloyd E. (1970) BS, U. of Utah, 1964; MS, PhD, U. of Kansas, 1968, 1970.
Layton, Robert L. (1954) BS, MS, U. of Utah, 1951, 1952; PhD, Syracuse U., 1962.

Geological Sciences

Jeffrey D. Keith, Chair
S-389 ESC, (801) 422-3918

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Geological Sciences are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Geological sciences consist of a number of disciplines aimed at understanding the Earth's origin and development and the natural processes that have operated upon it and within it from the time of formation of the solar system. With the development of remote sensing technology and the exploration of the solar system by spacecraft, geological sciences have become increasingly important for understanding not only the Earth but the Moon, other planets and their moons, and small bodies that orbit the sun.

Understanding the dynamic processes of Earth and other planets is relevant to many societal needs, such as assessment and forecasting of natural hazards, environmental change, and discovery of energy and mineral resources. Some of the diverse disciplines that can be studied in this department include general geology, plate tectonics, geochemistry, geophysics, paleontology, environmental geology, petroleum geology, hydrogeology, paleoclimatology, and planetary geology.

Career Opportunities

Graduates have the opportunity to work both outdoors and in the laboratory, pursuing careers in energy, mineral, and water resources or in environmental evaluation with industry, government, or consulting firms. The substantial preparation in basic sciences and mathematics also leads to a broad spectrum of teaching opportunities. Some scholarship money is available for those who pursue a geological sciences degree as a prelaw track. The most marketable terminal degree in geological sciences is the MS. Starting salaries for this degree are often very competitive with those of other disciplines.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Earth and Space Science Education
BS	Geology
	Emphasis (optional):
	Environmental Geology
Minors	Geology
	Geology Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Geology

For more information see the BYU 2007–2008 Graduate Catalog.

Global Geology Program

Each year the department provides opportunities for advanced undergraduates and graduate students to examine rocks and geological processes at some premier localities around the world. These one- to two-week field trips allow students to do mentored research projects and develop field expertise rarely available to undergraduate students. Programs that are run every four to five years include:

1. Active volcanism of Hawaii
2. Carbonate formation in Florida and the Bahamas
3. Tectonism and plutonism in the northeast Appalachians.

Trips to more distant localities (e.g., Italy, Great Britain, Alaska) are interspersed with these recurring trips. Scholarships are available that greatly reduce the cost to students.

BS Earth and Space Science Education (83–86 hours*, including licensure hours)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 411.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete three courses from the following:
   Geol 100, 109, 230, 351, 352, 370, 375, 404, 435, 440, 445, 451, 460, 476, 480.
5. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.
6. Complete the following:
   Engl 316.
   Math 119.
   Phil 423.
   Phscs 105, 106, 107, 108, 127, 137.
7. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 377R, 378, 379.

      Note: Fingerprinting and FBI clearance must be completed before enrollment in Sc Ed 377R.

   b. Complete 12 hours from one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

BS Geology (73–75 hours*)

This basic degree in geology prepares graduates for professional employment in industry or government or for advanced studies in geology, business, or law.

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 230, 351, 352, 370, 375, 410.

3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete four courses from the following:
   Geol 404, 411, 435, 440, 445, 451, 460, 476, 480.
5. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.
6. Complete the following:
   Engl 316.
   Math 112, 113.
   Phscs 105, 106.
   Stat 221.

Possible Specializations

Selecting a broad spectrum of elective courses for the geology BS degree may be best for most students. However, some students may wish to focus on one or more subdisciplines of the geological sciences. The courses listed below may be in addition to those required for the basic major. These are not separate degree tracks, but they may better prepare students for certain career paths or graduate school opportunities.

Petroleum Geology and Geophysics

1. Complete the following:
   Geol 476, 525.
2. Complete two courses from the following:
   Geol 440, 480, 521, 560, 561, 571, 574, 575, 580.

Geochemistry and Petrology

Complete at least four of the following elective courses:
Chem 227, 461.
Geol 404, 445, 545, 550, 551, 552, 555.

Vertebrate Paleontology

1. Complete at least four of the following elective courses:
   Biol 420.
   Geol 286, 480, 580, 586.
   InBio 380.
   PDBio 220.
2. Work at least one semester at the Earth Science Museum collecting and preparing fossil vertebrate specimens.

Planetary Geology and Remote Sensing

Complete the following elective courses:
Geog 313, 413.
Geol 109, 411, 440, 490R (planetary seminar).
Phscs 227 (optional 228, 329).

Structure and Tectonics

Complete the following elective courses:
Geol 411, 440, 560, 575.
Me En 250.

*Hours include courses that may fulfill university core requirements.

BS Geology: Environmental Geology Emphasis

(76–79 hours*)

Increasing concern with environmental degradation and natural geologic hazards has led to a demand for geologists who are both well grounded in the fundamentals of the science of geology and specifically prepared to address environmental problems. This degree prepares students for careers either in the environmental services industry or government or for advanced studies.

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Geol 111, 112, 210, 230, 351, 352, 370, 375, 404, 410, 435, 445.
3. Complete 2 hours of the following:
   Geol 491R (four enrollments).
4. Complete two courses from the following:
   CE En 351.
   Geol 411, 440, 535.
   PAS 303.
5. Complete the following:
   Engl 316.
   Math 112, 113.
   Phscs 105, 106.
   Stat 221.
6. Complete one of the following options:
   Either Chem 105, 106, 107
   Or Chem 111, 112.

*Hours include courses that may fulfill university core requirements.

Minor Geology (16 hours)

Minor Requirements

1. When all of the geology credit required for a minor is transferred from another school, at least one course in geology must be taken at BYU.
2. No D credit is allowed in minor courses.
3. Complete the following:
   Geol 111, 112.
4. Complete 8 hours from the following:
   Geol 109, 210, 286, 351, 352, 355, 370, 375, 404, 411, 435, 440, 445, 451, 460, 480.

Minor Geology Teaching (16 hours)

Minor Requirements

1. When all of the geology credit required for a minor is transferred from another school, at least one course in geology must be taken at BYU.
2. No D credit is allowed in minor courses.
3. Complete the following:
   Geol 111, 112.
4. Complete 8 hours from the following:
   Geol 109, 210, 286, 351, 352, 355, 370, 375, 404, 411, 435, 440, 445, 460, 480.

Geological Sciences (Geol)

Undergraduate Courses

100. Dinosaurs. (3:1:2) W
Hands-on examination of vertebrate fossils—especially dinosaurs. For nonscience majors. Field trips.

101. Introduction to Geology. (3:2:1) F, W, Sp, Su Honors also.
Cultural focus on physical and environmental geology for nonscience majors; rocks and minerals. Field trips.

102. Geological Field Studies. (3:6:0) F 1st blk., Su
Outdoor examination of geological processes via afternoon canyon hikes and other hands-on activities. For nonscience majors.

103. Life of the Past. (3:2:1) F, W
Cultural focus on historical geology for nonscience majors; fossils. Field trips.

109. Geology of the Planets. (3:3:0) W For nonscience and science majors.
Origins and distinctive histories of the planets in our solar system as revealed by study of their surface features.

111. Physical Geology. (4:3:2) F, W Prerequisite: Math 112 or concurrent enrollment.
Materials, structure, and surface features of the earth and the geologic processes involved in their development. Field trips and lab studies, use of aerial photos.

112. Historical Geology. (4:3:2) W, Su Prerequisite: Geol 111.
Developmental history of the earth, its landforms, and life forms, emphasizing the North American continent. Field trips and lab studies.

210. Field Studies. (3:0:9) F Prerequisite: Geol 111, 112.
Procedures in observing, collecting, and recording field data concerning properties of rock units. Contact Geological Sciences Department before April 15 for dates of upcoming August trip.

230. Geological Communications. (3:3:0) F, Su Prerequisite: Geol 111; 210 or concurrent enrollment.
Introduction to writing within the discipline and designing and creating publishable geologic maps and illustrations. Tools include ArcGIS, Adobe Illustrator, and Photoshop. Online portfolio initiated.

330. Geology for Engineers. (3:2:2) F, W, Sp
Geological processes and materials bearing on engineering practices. Field trips.

351. Mineralogy. (4:3:4) F Prerequisite: Chem 105 or 111 or concurrent enrollment.
Principles of crystallography and crystal chemistry. Physical, chemical, and crystallographic properties of minerals.

352. Petrology. (3:3:2) W Prerequisite: Geol 210, 351, Chem 105 or 111.
Compositions, fabrics, and field relations of igneous and metamorphic rocks; behavior of rock-forming systems. Field trips.

370. Sedimentology and Stratigraphy. (3:3:3) W Prerequisite: Geol 111, 112.
Erosion; sediment entrainment, transport, and deposition; depositional systems and facies analysis; principles of stratigraphy. Field trips.

375. Structural Geology. (3:3:2) F Prerequisite: Geol 111, 112, 351, 352; Phscs 121 or concurrent enrollment.
Geometric, kinematic, and dynamic analysis of tectonic features. Practical exercises. Using aerial photos. Field trips.

399R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su

404. Chemical Processes in the Environment. (3:3:0) F Prerequisite: Geol 111 or 330.
Natural controls on the composition of water; anthropogenic effects on air and water relative to understanding a range of environmental problems.

410. Geological Field Methods. (6:0:46) Sp Prerequisite: Geol 352, 370, 375.
Methods used to observe, collect, and interpret field data in geologic and environmental investigations. Fee.

411. Geomorphology and Geologic Hazards. (3:3:0) W Prerequisite: Geol 111.
Interpretive analysis of landforms and their geologic and environmental significance. Use of aerial photos. Field trips.

430. Senior Thesis. (3:Arr.:0) F Prerequisite: Geol 111, 112, 210, 351, 352, 370, 375.
Faculty-supervised research on a project of limited scope. Project is chosen and completed by the student. Written and oral presentation of findings required.

435. Introduction to Groundwater. (3:3:0) F Prerequisite: Geol 111 or 330; Math 110 or equivalent.
Introduction to the occurrence, movement, and properties of subsurface water; surface and groundwater relationships.

440. Solid Earth Geophysics. (3:3:0) W Prerequisite: Phscs 123.
Physics of the earth, including earthquake seismology. Gravity, seismic, magnetic, electrical, and heat flow properties and methods.

445. Geochemistry. (3:3:0) W Prerequisite: Chem 106, 107; or 112; Geol 352.
Applying elementary chemical principles to understand geologic processes and materials.

451. Optical Mineralogy. (3:2:2) W Prerequisite: Geol 351.
Interaction of light with crystalline material; using petrographic microscope; optical spectrometry.

460. Economic and Resource Geology. (3:2:2) F Prerequisite: Geol 352.
Nature and genesis of metallic and non-metallic mineral deposits, including laboratory study of economic minerals. Field trips.

476. Introduction to Seismic Interpretation. (3:3:0) F Prerequisite: Geol 370, 375.
Fundamental techniques; analyzing seismic reflection data. Reviewing fundamentals of seismic trace and geologic implications. Basic mapping of subsurface structure and stratigraphy.

480. Paleontology. (3:3:2) F Prerequisite: Geol 112.
Distribution, morphology, paleoecology, evolution, and stratigraphic significance of organisms in the geologic record. Field trips.

490R. Short Courses. (1–3:Arr.:0 ea.) On dem. Prerequisite: instructor's consent.
Short, undergraduate-level courses and extended field trips offered on an irregular basis. Fee.

491R. Geology Seminar. (0.5:1:0 ea.) F, W
Seminar on various geologic topics by guest speakers.

492R. Career Pathways Seminar. (0.5:1:0 ea.) W
Seminar on graduate school and career opportunities by guest speakers.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

504. Global Geology Field Studies. (1–3:Arr.:Arr.) On dem. Prerequisite: any senior-level geology course; instructor's consent.
In-depth study of classic geologic localities, such as Hawaii, the Bahamas, and the Appalachians, preliminary to on-site field study.

521. Borehole Geophysics and Geology. (3:3:0) F alt. yr. Prerequisite: Phscs 121, 220, Geol 351, 370.
Applied well log analysis, including conventional and new techniques. Subsurface geology and lithology determined from many logs. Determining porosity, permeability, and fluid saturation with hydrology, and hydrocarbon applications.

525. Petroleum Systems Analysis. (4:4:0) F alt. yr. Prerequisite: Geol 370 or equivalent.
Properties of petroleum; exploration methods; generation and migration of hydrocarbons, reservoirs, traps, and seals; sedimentary basin classification; energy resources. Extended field trip required.

530. Geological Communications Laboratory. (3:3:0) F Prerequisite: instructor's consent; graduate status.
Designing and creating a variety of student-selected geological illustrations emphasizing maps and cross-sections.

535. Contaminant Hydrogeology. (3:3:0) W Prerequisite: Geol 435 or equivalent.
Principles, tools, and applications used to solve heavy metal, organic, and radionuclide groundwater contamination problems. Topics include regulations, mass transport, multiphase flow, transformation, retardation, and attenuation.

545. Isotope Geochemistry. (3:1:4) F alt. yr. Prerequisite: Geol 352 or equivalent.
Use of stable and radioactive isotope systematics in geochronology and investigation of origins of rocks and waters.

550. Environmental Soil Chemistry. (3:3:0) F alt. yr. Prerequisite: Chem 105, 106, 107; or equivalents.
Chemistry of soil systems at macroscopic and microscopic scales, examined from perspective of scientists interested in environmental assessment and remediation.

551. Advanced Mineralogy. (3:2:2) W alt. yr. Prerequisite: Geol 351 or equivalent.
Crystallography, structure, and crystal chemistry of major silicate mineral groups.

552. Igneous Petrology. (3:4:3) Prerequisite: Geol 352 or equivalent.
Origin and evolution of magmas, emphasizing trace element and isotopic compositions and intensive properties as calculated from mineral compositions.

555. Volcanism and Ore Deposits. (1–3:Arr.:Arr.) On dem. Prerequisite: Geol 352 or equivalent.
Field examination of active mafic and silicic volcanism (Hawaii and Yellowstone) and discussion of magmatic volatiles' role in ore deposits.

560. Reflection Seismology Theory. (3:3:0) W alt. yr. Prerequisite: Geol 375, Phscs 121, 123, 220; or equivalents.
Principles, tools, and methods used in seismic reflection geophysics, with exploration, engineering, environmental, and hydrological applications.

561. Applied Exploration Seismology. (3:3:0) F alt yr. Prerequisite: Geol 375, Phscs 121, 123, 220; or equivalents.
Seismic acquisition processing and computer-assisted interpretation, emphasizing field deployment techniques, use of commercial data processing, and visualization software.

565R. Special Topics in Geology. (2–4:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
The following topics may be offered on demand:
—Geology for Teachers
—Ore Deposits
—Solid-Water Interface Chemistry
—X-Ray Crystallography

571. Sedimentology and Ecology of Modern Carbonate Systems. (1–3:Arr.:Arr.) W on dem. Prerequisite: Geol 370 or equivalent.
Field course in the Caribbean emphasizing factors that produce carbonate sediments. Investigation of tidal flat to offshore barrier reef environments and Pleistocene outcrops.

574. Advanced Stratigraphy. (3:3:0) W alt. yr. Prerequisite: Geol 370 or equivalent. Recommended: Geol 480.
Studying the stratigraphic record through modern methods of correlating stratal packages, emphasizing concepts of sequence and seismic stratigraphy, and utilizing methods of chronostratigraphy, biostratigraphy, lithostratigraphy, and absolute dating. Extended field trip required.

575. Advanced Structural Geology. (3:2:3) F alt. yr. Prerequisite: Geol 375, 410; or equivalents.
In-depth discussions of a variety of topics in structural geology, emphasizing current literature and problems.

576. Three-Dimensional Subsurface Mapping and Evaluation. (3:3:0) W Prerequisite: Geol 476 or equivalent.
Advanced interpretation of 3D seismic reflection data. Integrating well and seismic data to interpret complex geologic systems. Implications for understanding hydrocarbon reservoirs.

580. Principles of Paleontology. (3:3:0) W alt. yr. Prerequisite: Geol 480 or equivalent.
Modern approaches to fossil study applied to areas of evolution, paleoecology, and biostratigraphy.

586. Vertebrate Paleontology. (4:3:2) F alt. yr. Prerequisite: instructor's consent.
History of vertebrate fossils. Field trips required. Credit applies in either zoology or geology. Lab studies.

590R. Short Courses. (1–3:3:3 ea.) F, W on dem.
Short graduate-level courses offered on a random basis. Fee.

591R. Seminar. (0.5:1:0 ea.) F, W
Seminar on various geologic topics by guest speakers. Total of 1 credit hour required.

592R. Career Pathways Seminar. (0.5:1:0 ea.) W alt yr.
Seminar on graduate school and career opportunities by guest speakers.

599R. Academic Internship. (1–9:0:0 ea.) F, W, Sp, Su

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Geological Sciences Faculty

Professors
Christiansen, Eric H. (1986) BS, Brigham Young U., 1977; ScM, Brown U., 1978; PhD, Arizona State U., 1981.
Griffen, Dana Thomas (1979) BS, U.S. Naval Academy, 1965; MS, PhD, Virginia Polytechnic Inst., 1973, 1975.
Harris, Ronald A. (1998) BS, U. of Oregon, 1982; MS, U. of Alaska, 1986; PhD, U. of London, England, 1989.
Keith, Jeffrey D. (1990) BS, Brigham Young U., 1977; MS, PhD, U. of Wisconsin, Madison, 1980, 1982.
Kowallis, Bart J. (1982) BS, Brigham Young U., 1977; MS, PhD, U. of Wisconsin, Madison, 1979, 1981.
Mayo, Alan L. (1987) BS, MS, San Diego State U., 1970, 1972; PhD, U. of Idaho, 1981.
McBride, John H. (2002) BS, MS, U. of Arkansas, 1978, 1980; PhD, Cornell U., 1987.
Morris, Thomas H. (1990) BS, Brigham Young U., 1981; MS, PhD, U. of Wisconsin, Madison, 1985, 1986.
Nelson, Stephen T. (1997) BS, MS, Brigham Young U., 1984, 1987; PhD, U. of California, Los Angeles, 1991.
Ritter, Scott M. (1991) BS, MS, Brigham Young U., 1981, 1983; PhD, U. of Wisconsin, Madison, 1986.

Assistant Professors
Bickmore, Barry (2001) BS, Brigham Young U., 1994; PhD, Virginia Tech., 1999.
Britt, Brooks B. (2002) BS, MS, Brigham Young U., 1982, 1987; PhD, U. of Calgary, Canada, 1993.
Radebaugh, Jani (2006) BS, MS, Brigham Young U., 1993, 1999; PhD, U. of Arizona, 2005.

Research Professors
Dorais, Michael J. (2000) BS, Brigham Young U., 1980; MS, U. of Oregon, 1983; PhD, U. of Georgia, 1987.
Tingey, David G. (1990) BS, MS, Brigham Young U., 1983, 1989.

Adjunct Faculty
Nixon, R. Paul (1989) BS, MS, U. of Utah, 1955, 1955; PhD, Brigham Young U., 1972.

Assistant Teaching Professor
Skinner, H. Randal (2003) BS, MS, Brigham Young U., 1992, 1996.

Emeriti
Baer, James L. (1969) BS, Ohio State U., 1957; MS, PhD, Brigham Young U., 1962, 1968.
Best, Myron G. (1965) BS, U. of Utah, 1957; PhD, U. of California, Berkeley, 1961.
Brimhall, Willis H. (1955) BS, Brigham Young U., 1949; MS, U. of Arizona, 1951; BES, Brigham Young U., 1960; PhD, Rice U., 1966.
Bullock, Kenneth C. (1943) BS, MA, Brigham Young U., 1940, 1942; PhD, U. of Wisconsin, Madison, 1949.
Hamblin, Wm. Kenneth (1962) BS, MS, Brigham Young U., 1953, 1954; PhD, U. of Michigan, 1958.

Hintze, Lehi F. (1955) BA, U. of Utah, 1941; MA, PhD, Columbia U., 1949, 1951.
Miller, Wade E. (1971) AA, El Camino Coll., 1957; BS, Brigham Young U., 1960; MS, U. of Arizona, 1963; PhD, U. of California, Berkeley, 1968.
Petersen, Morris S. (1966) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of Iowa, 1962.
Phillips, Wm. Revell (1957) BS, MS, PhD, U. of Utah, 1950, 1951, 1954.
Rigby, J. Keith (1953) BS, MS, Brigham Young U., 1948, 1949; PhD, Columbia U., 1952.

Germanic and Slavic Languages

David K. Hart, Chair
3112 JFSB, (801) 422-4923

College of Humanities Advisement Center
1175 JFSB , (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Germanic and Slavic Languages are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Students of foreign language and literature develop fluency in another language as well as sensitivity to their own language and cultural heritage, to the contributions and diversity of other peoples, and to the advantages of an international perspective.

Career Opportunities

Experience with the intellectual, artistic, and spiritual expressions of other cultures and of their own culture helps students qualify for advanced study at graduate and professional schools, especially in linguistics, literature, language teaching methodology, library science, humanities, business, law, and medicine. Those who accept employment on completion of the BA degree frequently serve in international business, in education, or in a government agency.

General Information

The Department of Germanic and Slavic Languages strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	German
	Emphases:
	Linguistics
	Literature
BA	German Teaching
BA	Russian
Minors	German
	German Teaching
	Russian
	Russian Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Language Acquisition (German or Russian)
MA German Literature

For more information see the BYU 2007–2008 Graduate Catalog.

Afrikaans Courses (Afrik)

101, 102. First-Year Afrikaans. (4:5:1 ea.)
Basic language skills.

201. Second-Year Afrikaans. (4:5:1) Prerequisite: Afrik 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Afrikaans. (4:5:1) Prerequisite: Afrik 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Afrik 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Afrik 211R or equivalent experience.
Advanced conversational skills.

Bulgarian Courses (Bulgn)

101, 102. First-Year Bulgarian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Bulgarian. (4:5:1) Prerequisite: Bulgn 102 or instructor's consent based on prior experience.
Grammar review and conversation.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Bulgn 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Bulgaria. (3:3:1) Prerequisite: Bulgn 201 or foreign residence experience.
Entry course for returned missionaries or others with extensive Bulgarian language experience. Required course for obtaining language credit by examination (Bulgn 101, 102, 201, 211R).

Czech Courses (Czech)

101, 102. First-Year Czech. (4:5:1 ea.)
Basic language skills.

201. Second-Year Czech. (4:5:1) Prerequisite: Czech 102 or equivalent experience.
Grammar review and conversation.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Czech 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Czech Republic. (3:3:1) Prerequisite: Czech 201 or foreign residence experience.
Entry course for returned missionaries or others with extensive Czech or Slovak language experience. Required course for obtaining language credit by examination (Czech 101, 102, 201, 211R).

Dutch Courses (Dutch)

101, 102. First-Year Dutch. (4:5:1 ea.)
Basic language skills.

201. Second-Year Dutch. (4:5:1) Prerequisite: Dutch 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dutch 201 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dutch 211R or equivalent experience.
Advanced conversational skills.

340. Introduction to Dutch Literature. (3:3:0) Prerequisite: reading knowledge of Dutch.
Readings from the best Dutch literature. Introduction to basic literary concepts. Required course for obtaining language credit by examination (Dutch 101, 102, 201, 211R).

German

General Information

1. Beginning German courses (101, 102, 201, 202) will be waived for students having comparable German training or experience. Consult department for information about placement examinations.
2. All students will purchase a portfolio packet when they enroll in their first class in the German section. This portfolio will travel with the students as they progress from course to course through the degree program. It will serve as a checklist to guide them through their course of study, will record their language proficiency, and will also be a repository for all papers and creative work produced by the student in the department. The completed portfolio will be reviewed in Germ 400R in conjunction with the senior proficiency exam.
3. All students completing a degree in the German section will be required to master a reading list of masterworks (provided in the portfolio) during their course of study. This can be done either in conjunction with course work or independently.
4. A senior capstone paper is required for graduation.
5. Germ 200R and 300R are designed to help students who desire additional skill in speaking, etc.
6. In their final year, graduating seniors must register for 1 credit hour of Germ 400R in conjunction with the senior proficiency examination (offered fall and winter only). Portfolios should be completed and will be reviewed at the time of this exam.
7. Students planning graduate studies in German should begin a second foreign language.

Language Residency Programs

1. **Vienna Study Abroad (Germ 201, 202, 211R, 310, 311R; 320 or 330).** An opportunity for developing language proficiency as well as for becoming better acquainted with the history and culture of Europe. Spring and summer terms. Prerequisite: Germ 102 or equivalent.
2. **German Internship Program (Germ 211R/311R, IAS 397R; Germ 399R or IAS 399R).** The BYU German program is pleased to offer a broad range of short-term internship opportunities in German-speaking countries. Students receive individual help to find and prepare for a work experience that will improve their German-language skills and provide a meaningful context for their academic studies. Completion of Germ 202, or an approved equivalent, with at least a B+ grade is required.
3. **Foreign Language Student Residence (Germ 211R, 311R).** An opportunity to live with other students who have pledged to use only German within the house and with head residents who are native speakers of German. Enrollment in a German class in addition to 211R and 311R is required while living in the house. Prerequisite: Germ 102 or equivalent.
4. **German-Speaking LDS Mission or Other Extended German-Speaking Residency.** Advanced students enroll in Germ 330 and, if desired, complete examinations for Germ 101, 102, 201, and 4 hours of 311R.
5. **Study at a German University.** The department strongly recommends that students spend their junior year at a German university taking courses that will apply toward the major. Universities in Germany charge no tuition, so, even though

living costs are generally higher, with careful planning and modest financial support, most students find they can study at "Provo parity," that is, for about the same amount as a year of study in Provo. For advice about how to enroll and what financial support is available, contact the department office.

BA German: Linguistics Emphasis (36–55 hours*)

Major Requirements

1. See General Information section above.
2. At least 18 hours of upper-division major credit must be taken in residence at BYU.
3. Complete one of the following Level 1 course options (may be waived with equivalent experience):
   Either Germ 101, 102
   Or Germ 103.
4. Complete the following Level 2 courses (may be waived with equivalent experience):
   Germ 201, 202.
5. Complete 3 hours of one of the following:
   Germ 211R, 311R, or equivalent.
6. Complete the following Level 3 courses:
   Germ 310, 330, 343.
7. Complete one of the following Level 3 course options:
   Either Germ 320, 321
   Or Germ 322.
8. Complete the following or other approved advanced writing course:
   Germ 340.
9. Complete the following:
   Germ 450, 460, 497R.

   Note: Germ 497R must be a topic related to advanced German linguistics.
10. Complete 8 additional hours of pro-seminars and/or courses numbered 341 or higher, 5 hours of which must be approved linguistics courses such as phonetic spectroscopy, dialectology, Middle High German, or Old Saxon.
11. Master a reading list of masterworks (provided in the portfolio) either in conjunction with course work or independently.
12. Final German proficiency examination: complete the following during the last two semesters before graduation (not offered spring or summer):
    Germ 400R (1 hour required).

    Note: A capstone paper will be required.

*Hours include courses that may fulfill university core requirements.

BA German: Literature Emphasis (36–55 hours*)

Major Requirements

1. See General Information section above.
2. At least 18 hours of upper-division major credit must be taken in residence at BYU.
3. Complete one of the following Level 1 course options (may be waived with equivalent experience):
   Either Germ 101, 102
   Or Germ 103.
4. Complete the following Level 2 courses (may be waived with equivalent experience):
   Germ 201, 202.
5. Complete 3 hours of one of the following:
   Germ 211R, 311R, or equivalent.
6. Complete the following Level 3 courses:
   Germ 310, 330, 343.
7. Complete one of the following Level 3 course options:
   Either Germ 320, 321
   Or Germ 322.
8. Complete the following or other approved advanced writing course:
   Germ 340.
9. Complete the following:
   Germ 450.
10. Complete 14 additional hours of pro-seminars and/or courses numbered 341 or higher. Of these, 11 hours must be approved literature or culture courses such as advanced literature seminars, advanced critical theory, German film, and other courses related to culture, theory, and literary scholarship.
11. Master a reading list of masterworks (provided in the portfolio) either in conjunction with course work or independently.
12. Final German proficiency examination: complete the following during the last two semesters before graduation (not offered spring or summer):
    Germ 400R (1 hour required).

    Note: A capstone paper will be required.

*Hours include courses that may fulfill university core requirements.

BA German Teaching (76–100 hours*, including licensure hours)

Major Requirements

1. See General Information section above.
2. At least 18 hours of upper-division major credit must be taken in residence at BYU.
3. Complete an approved teaching minor (approximately 16–21 hours).
4. Declare the major at the Humanities Advisement Center and contact the German teaching major advisor to complete a German proficiency examination. A minimum initial rating of *intermediate—mid* is recommended.
5. Complete one of the following Level 1 course options (may be waived with equivalent experience):
   Either Germ 101, 102
   Or Germ 103.
6. Complete the following Level 2 courses (may be waived with equivalent experience):
   Germ 201, 202.
7. Complete 3 hours of one of the following:
   Germ 211R, 311R, or equivalent.
8. Complete the following Level 3 courses:
   Germ 310, 330, 343, 377 *and* 378 (fall only).

   Note: Fingerprinting and FBI clearance must be completed before enrolling in Germ 377. Germ 377 must be taken concurrently with Germ 378 fall semester and prior to student teaching; however, Germ 377 and 378 may be waived for students who have taken a methods course for another language.
9. Complete one of the following Level 3 course options:
   Either Germ 320, 321
   Or Germ 322.

10. Complete the following or other approved advanced writing course:
    Germ 340.
11. Complete one course from the following:
    Germ 450, 460.
12. Complete 10 additional hours of pro-seminars and/or courses numbered 341 or higher.
13. Master a reading list of masterworks (provided in the portfolio) either in conjunction with course work or independently.
14. Complete a senior capstone paper.
15. Final German proficiency examination: complete the following during one of the last two semesters before graduation (not offered spring or summer). A minimum proficiency rating of *advanced—low* is required:
    Germ 400R (1 hour required).
16. Complete the Professional Education Component:
    a. Complete the following:
       CPSE 402.
       IP&T 286.
       Sc Ed 276R, 350, 353, 379.
    b. Complete 12 hours from one of the following:
       Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor German (15–34 hours*)

Minor Requirements

1. Complete one of the following prerequisite course options (may be waived with equivalent experience):
   Either Germ 101, 102
   Or Germ 103.
2. Complete the following prerequisite courses (may be waived with equivalent experience):
   Germ 201, 202.
3. Complete the following:
   Germ 310, 330.
4. Complete one of the following options:
   Either Germ 320, 321
   Or Germ 322.
5. Complete 6 additional hours of pro-seminars and/or courses numbered 341 or higher.

*Hours include courses that may fulfill university core requirements.

Minor German Teaching (17–36 hours)

Minor Requirements

1. Declare the minor at the Humanities Advisement Center and contact the German teaching major advisor to complete a German proficiency examination. A minimum initial proficiency rating of *intermediate—mid* is recommended.
2. Complete one of the following prerequisite course options (may be waived with equivalent experience):
   Either Germ 101, 102
   Or Germ 103.
3. Complete the following prerequisite courses (may be waived with equivalent experience):
   Germ 201, 202.
4. Complete the following:
   Germ 310, 330, 377 *and* 378 (fall only).

   Note: Fingerprinting and FBI clearance must be completed before enrolling in Germ 377. Germ 377 must be taken concurrently with Germ 378 fall semester and prior to student teaching; however, Germ 377 and 378 may be waived for students who have taken a methods course for another language.
5. Complete one of the following course options:
   Either Germ 320, 321
   Or Germ 322.
6. Complete 3 additional hours of pro-seminars and/or courses numbered 341 or higher.
7. Final German proficiency examination: complete the following during the last semester before graduation (not offered spring or summer). A minimum proficiency rating of *advanced—low* is required.
   Germ 400R (1 hour required).

German (Germ)

Undergraduate Courses

101. First-Year German. (4:5:1) For those who have had no German. Independent Study also.
Listening, speaking, reading, writing, grammar, and culture.

102. First-Year German. (4:5:1) Independent Study also. Prerequisite: C grade or better in Germ 101 or equivalent.
Listening, speaking, reading, writing, grammar, and culture.

103. Intensive First-Year German. (4:5:1) Honors also.
Covers both Germ 101 and 102. Listening, speaking, reading, writing, grammar, and culture.

115. Pro-Seminar 1. (1:1:0)
Introduction to German cultural studies, mentored research, and professional skills development.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript. Report required. Not applicable to German major or minor.

200R. Second-Year Proficiency Tutorial. (0.5–3:Arr.:Arr. ea.) F, W Prerequisite: Germ 102 or equivalent.
Individualized skill building in listening, speaking, reading, writing, and grammar.

201. Second-Year German. (4:5:1) Prerequisite: C grade or better in Germ 102 or equivalent.
Reading, writing, grammar, culture, listening, and speaking.

202. Second-Year German. (4:5:1) Prerequisite: C grade or better in Germ 201 or equivalent.
Culminating course for GE Foreign Language requirement emphasizing culture and literature. Continued writing, grammar, listening, and speaking. Prerequisite to all 300- and 400-level courses.

211R. Intermediate Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Germ 102 or equivalent experience.
Intensive vocabulary building and conversation practice. Can be fulfilled through language residency program.

215. Pro-Seminar 2. (1:1:0)
Introduction to mentored scholarly research in German cultural studies. How to apply for ORCA grants and Fulbright and other fellowships. Continued professional skills development.

300R. Third-Year Proficiency Tutorial. (0.5–3:Arr.:Arr. ea.) F, W Prerequisite: Germ 202 or equivalent.
Individualized skill building in listening, speaking, reading, writing, and grammar.

310. German Phonetics and Pronunciation. (3:3:0) Prerequisite: Germ 202 or equivalent experience.
Perfecting listening and speaking skills through applying phonetics and acoustic analysis; practicing speaking and listening.

311R. Advanced Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Germ 211R or equivalent experience.
Intensive vocabulary building and conversation practice. Can be fulfilled through language residency program.

315. Pro-Seminar 3. (1:1:0)
Mentored research building toward honors thesis, capstone paper, or publishable paper. Continued opportunity to work on grant and fellowship applications. Professional skills development.

320. Grammar and Composition 1. (3:3:0) Independent Study also. Prerequisite: Germ 310 or concurrent enrollment.
Perfecting grammar, reading, writing, listening and speaking skills using current news items from German-speaking countries as a basis.

321. Grammar and Composition 2. (3:3:0) Independent Study also. Prerequisite: Germ 320.
Continuation of Germ 320.

322. Intensive Grammar and Composition. (3:3:0) Prerequisite: Germ 310 or concurrent enrollment.
Covers Germ 320 and 321 in one semester.

330. Cultural History of German-Speaking Peoples. (3:3:1) Honors also. Prerequisite: Germ 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent German language experience. Culture, with listening, speaking, reading, writing, and grammar as secondary emphases. Required course for obtaining language credit by examination (Germ 101, 102, 201, 311R). Prerequisite to all 400-level courses.

340. Writing About Literature. (3:3:0) Honors also.
Methods of literary interpretation. Reading, writing, and research skills integral to the literary analysis expected in German major or minor courses. Fills GE Advanced Written and Oral Communication requirement.

343. Introduction to Literary Analysis. (3:3:0) Honors also. Recommended: Germ 320, 321, 330, 340.
Close reading of texts; examining various critical theories and their application to German prose, drama, poetry, and film. Preparation for 440R–445R sequence.

370. German Teaching in Higher Education. (3:2:1) W Prerequisite: Germ 310, 320, 330.
Theories, methods, and techniques of second-language learning and teaching applied to the university context; practicum in department German courses.

377. Methods in Teaching German. (3:3:0) Prerequisite: Germ 310, 320, 321, 330; Sc Ed 276R; fingerprinting and FBI clearance.
Developing meaningful and engaging instruction for secondary students in German; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378. Practicum in Teaching German. (1:1:2) F Prerequisite: Germ 310, 320, 321, 330; Sc Ed 276R; concurrent enrollment in Germ 377.
Implementing meaningful and engaging instruction for secondary students in German; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

399R. Academic Internship: German Work. (1–9:Arr.:Arr. ea.)
On-the-job ten-week summer language experience in German-speaking countries. Report required. Not applicable to German major or minor.

400R. Fourth-Year Proficiency Tutorial. (0.5–3:Arr.:Arr. ea.) F, W Prerequisite: senior status.
Individualized skill building in listening, speaking, reading, writing, and grammar. Completed portfolios reviewed, and final proficiency examination administered. Required for one credit in one of final two semesters for graduating seniors.

415. Pro-Seminar 4. (1:1:0) Prerequisite: Germ 315.
Mentored research leading to completion of capstone paper, honors thesis, ORCA paper, or other publishable papers. Review of portfolio. Direction in submitting papers for publication, reading papers at conferences. Continued professional skills development, including how to apply for graduate school and complete Fulbright and other fellowship applications.

440R. German Literary Periods and Movements. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
In-depth study of a period or movement such as medieval, Renaissance, baroque, eighteenth century, romanticism, classicism, realism, fin-de-siècle Vienna, naturalism, expressionism, postwar, or contemporary.

441R. Studies in German Literary Genres. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
In-depth study of a genre such as drama, novel, novella, lyric, or film.

442R. Major German Authors. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
In-depth study of one author such as Lessing, Goethe, B.V. Arnim, Kleist, Storm, Rilke, Brecht, Mann, Kafka, or Bachmann.

443R. Studies in Literary Theory. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
In-depth study of primary texts by contemporary literary theorists. May include topics such as Frankfurter school, feminist criticism, reader response, or post-structuralism.

444R. Interdisciplinary Studies. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
Studies linking German literature, film, and the arts within German culture or across national boundaries.

445R. Special Topics in German Cultural Studies. (1–5:Arr.:0 ea.) Recommended: Germ 320, 321, 330, 340, 343.
German cultural studies course of a non-traditional nature, as determined by the faculty.

450. History of the German Language. (3:3:0) Prerequisite: Germ 310, 320, 321.
Linguistic survey of the German language from Indo-European to modern times, including phonology, morphology, syntax, and lexicon.

460. Structure of Modern German. (3:3:0) Prerequisite: Germ 310, 320, 321.
Structural and socio-linguistic study of contemporary German

490R. Special Studies in German. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Variable credit for individual or group study as approved for special circumstances. Not applicable to German major or minor.

497R. Senior Seminar in German Language. (3:3:0 ea.) Prerequisite: senior status.
Culminating senior-level course in which acquired knowledge and critical skills are brought to bear on a selected language topic. In-depth capstone paper on one aspect of topic.

498R. Senior Seminar in German Literature. (3:3:0 ea.) Prerequisite: senior status.
Culminating senior-level course in which acquired knowledge and critical skills are brought to bear on a selected literature topic. In-depth capstone paper on one aspect of topic.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Hungarian Courses (Hung)

101, 102. First-Year Hungarian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Hungarian. (4:5:1) Prerequisite: Hung 102 or instructor's consent based on prior Hungarian experience.
Grammar review and conversation.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Hung 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Hungary. (3:3:1) For returned missionaries and others with extensive Hungarian language experience. Prerequisite: Hung 201 or foreign residence experience.
Required course for obtaining language credit by examination (Hung 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Latvian Courses (Latvi)

101. First-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

102. First-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

201. Second-Year Latvian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Latvia. (3:3:1) Prerequisite: foreign residence experience.
Entry course for returned missionaries from Latvia. Required course for obtaining language credit by examination (Latvi 101, 102, 201, 211R).

Lithuanian Courses (Lithu)

101. First-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

102. First-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

201. Second-Year Lithuanian. (4:5:1) Prerequisite: foreign residency experience.
Credit by examination only.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Lithuania. (3:3:1) Prerequisite: foreign residence experience.
Entry course for returned missionaries from Lithuania. Required course for obtaining language credit by examination (Lithu 101, 102, 201, 211R).

Polish Courses (Polsh)

101. First-Year Polish. (4:5:1)
Basic language skills.

102. First-Year Polish. (4:5:1) Prerequisite: Polsh 101.
Continuation of Polsh 101.

201. Second-Year Polish. (4:5:1) Prerequisite: Polsh 102 or foreign residence experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second-Year Polish. (4:5:1) Prerequisite: Polsh 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Polsh 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Polsh 211R or foreign residence experience.
Advanced conversational skills.

330. Cultural History of Poland. (3:3:1) For returned missionaries or others with extensive Polish language experience. Prerequisite: Polsh 201 or foreign residence experience.
Required course for obtaining language credit by examination (Polsh 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

340. Polish Literature Survey. (3:3:0) Prerequisite: Polsh 330.
Survey of Polish literature from Kochanowski to Szymborska, including works by Rej, Krasicki, Mickiewicz, Slowacki, Norwid, Prus, Sienkiewicz, Zeromski, Reymont, and others.

Russian

BA Russian (56–84 hours*)

General Information

Important Note for Returned Russian-Speaking Missionaries: Register for third-year Russian classes. Russ 330 is recommended. Russ 202 will be waived as a requirement for Russian majors and should not be taken except when remedial work is necessary and permission is obtained from the section leader. Credit for Russ 101, 102, 201, and 211 is available through a test given as part of Russ 330. Returned missionaries must complete Russ 330 and talk with the Russian section head before declaring a major.

Major Requirements

1. Complete the following preparatory courses (may be waived for students with sufficient proficiency in the language):
   Russ 101, 102, 201, 202.
2. Complete the following major courses:
   Russ 321, 322, 323, 330, 340, 421, 422, 441, 442, 492R.
3. Complete one course from the following:
   Russ 341, 342, 343.
4. Complete a substantial program of study that complements the student's educational and professional goals. This program should be described and justified in a letter to the Russian section leader, and approved by the section, no later than the year before graduation.

Note: In addition to completing other Russian course work, it is expected that majors who have not spent an extended period in Russia will live for at least a semester in the Russian Student Foreign Language Residence *and* complete the BYU or approved equivalent Study Abroad program in Russia.

*Hours include courses that may fulfill university core requirements.

Minor Russian (12–32 hours*)

Minor Requirements

1. Complete the following prerequisite courses (may be waived for students with sufficient proficiency in the language):
   Russ 101, 102, 201, 202.
2. Complete the following with the BYU St. Petersburg Study Abroad program or an approved equivalent program:
   Russ 211, 321, 330, 490R.

Note: This minor is designed only for students of Russian who have had no missionary-level residency experience in Russia.

*Hours include courses that may fulfill university core requirements.

Minor Russian Teaching (17–32 hours*)

Note: Before declaring a Russian teaching minor, candidates must consult with the section leader.

Minor Requirements

1. Register with the secretary in the department office.
2. Complete the following prerequisite courses (may be waived for students with sufficient proficiency in the language):
   Russ 101, 102, 201.
3. Complete the following:
   Russ 202 (see note under information to returned Russian-speaking missionaries), 330, 340, 377, 378. If 202 was waived, take 441 or 442.

   Note: Russ 377 must be taken concurrently with Russ 378 fall semester and prior to student teaching; however, Russ 377 and 378 may be waived for students who have taken a methods course for another language.
4. Complete one course from the following:
   Russ 321, 322.

*Hours include courses that may fulfill university core requirements.

Russian (Russ)

Undergraduate Courses

101, 102. First-Year Russian, Parts 1 and 2. (5:5:1 ea.)

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript. Report required. Not applicable to major or minor.

201. Second-Year Russian, Part 1. (5:5:1) Prerequisite: Russ 102 or instructor's consent, based on prior Russian language experience.
Grammar review and conversation.

202. Second-Year Russian, Part 2. (5:5:1) Prerequisite: Russ 201 or instructor's consent.
Grammar review and discussion in Russian of both expository and literary readings. Culminating course for GE Foreign Language requirement.

211. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Russ 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills. Offered only as credit by examination upon completion of Russ 330 (maximum 1 hour) or through Study Abroad experience in Russian (1–5 hours).

321, 322. Third-Year Russian, Parts 1 and 2. (2:2:0 ea.) Prerequisite: Russ 202 or equivalent.
Grammar and composition, case government, listening and speaking skills.

323. Russian Phonetics and Pronunciation. (2:2:0) Prerequisite: Russ 202 or equivalent.
Perfecting speaking and listening skills through phonetics and applied speaking and listening techniques.

330. Cultural History of Russia. (3:3:1) Prerequisite: Russ 202 or foreign residence experience.
Required course for obtaining language credit by examination (Russ 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

340. Masterpieces of the Russian Novel in English. (3:3:0)
Survey of Russian novels by such authors as Pushkin, Tolstoy, Dostoevsky, and Pasternak.

341. Dostoevsky's Major Works in Translation. (3:3:0)
Survey of Dostoevsky's major works in English translation.

342. Tolstoy's Major Works in Translation. (3:3:0)
Survey of Tolstoy's major works in English translation.

343. Masterpieces of Russian Film. (2:2:1) Prerequisite: Russ 330.
Developing listening comprehension and speaking skills through discussing Russian films.

377. Methods in Teaching Russian. (3:3:0) F Prerequisite: Russ 201; Sc Ed 276R; fingerprinting and FBI clearance.
Developing meaningful and engaging instruction for secondary students in Russian; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378. Practicum in Teaching Russian. (1:1:2) F Prerequisite: Russ 201; Sc Ed 276R; concurrent enrollment in Russ 377.
Implementing meaningful and engaging instruction for secondary students in Russian; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: Russ 202 and department's consent.
On-the-job experience in Russian-related areas. Not applicable to any Russian major or minor. Report required.

421. Fourth-Year Russian, Part 1. (3:3:0) Prerequisite: Russ 321, 322, 330.
Contemporary language and culture.

422. Fourth-Year Russian, Part 2. (3:3:0) Prerequisite: Russ 321, 322, 330.
Structure of Russian.

441. Masterpieces of Russian Literature 1. (3:3:0) Prerequisite: Russ 321, 322; 340 or 341 and 342.
Survey of shorter masterpieces in Russian.

442. Masterpieces of Russian Literature 2. (3:3:0) Prerequisite: Russ 321, 322; 340 or 341 and 342.
Survey of shorter masterpieces in Russian.

490R. Special Studies in Russian. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Variable credit for individual or group study as approved for special circumstances.

492R. Senior Seminar: Passages and Conclusions. (2:2:0) Prerequisite: Russ 441 or 442.
In-depth study of a limited area of literature or language. Content varies; requires research and writing.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Serbo-Croatian Courses (SrbCr)

101. First-Year Serbo-Croatian. (4:5:1)
Basic language skills.

102. First-Year Serbo-Croatian. (4:5:1) Prerequisite: SrbCr 101.
Continuation of SrbCr 101.

201. Second-Year Serbo-Croatian. (4:5:1) Prerequisite: SrbCr 102 or foreign residence experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: SrbCr 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: SrbCr 211R or foreign residence experience.

330. Cultural History of the Former Yugoslavia. (3:3:1) For returned missionaries or others with extensive Serbo-Croatian language experience. Prerequisite: SrbCr 201 or foreign residence experience.
Required course for obtaining language credit by examination (SrbCr 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Slovenian Courses (Sln)

101. First-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

102. First-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

201. Second-Year Slovenian. (4:5:1) Prerequisite: foreign residence experience.
Credit by examination only.

211R. Second-Year Slovenian. (1–5:Arr.:Arr. ea.) Prerequisite: foreign residence experience.
Credit by examination only.

330. Cultural History of Slovenia. (3:3:1) For returned missionaries or others with extensive Slovenian language experience. Prerequisite: foreign residence experience.
Required course for obtaining language credit by examination (Sln 101, 102, 201, 211R).

Ukrainian Courses (Ukrai)

101, 102. First-Year Ukrainian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Ukrainian. (4:5:1) Prerequisite: Ukrai 102 or instructor's consent.
Grammar review and conversation.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Ukrai 201 or foreign residence experience.
Intermediate listening comprehension and speaking skills.

330. Cultural History of Ukraine. (3:3:1) For returned missionaries or others with extensive Ukrainian language experience. Prerequisite: Ukrai 201 or foreign residence experience.
Required course for obtaining language credit by examination (Ukrai 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement.

Germanic and Slavic Languages Faculty

Professors

Hart, David Kay (1984) BA, Brigham Young U., 1973; MA, PhD, U. of Washington, 1975, 1979.
Keele, Alan F. (1971) BA, Brigham Young U., 1967; PhD, Princeton U., 1971.
Kelling, Hans-Wilhelm (1962) BA, Brigham Young U., 1958; MA, PhD, Stanford U., 1960, 1967.

Associate Professors

James, Michelle (1987) BA, Weber State Coll., 1978; MA, PhD, U. of Utah, 1981, 1987.
Lundberg, Grant H. (1999) BA, Brigham Young U., 1992; MA, PhD, U. of Kansas, 1994, 1995.

Associate Teaching Professor

Whipple, Walter (1993) BA, MM, Brigham Young U., 1968, 1969; DMA, U. of Southern California, 1972; TESOL, Brigham Young U., 1989.

Assistant Professors

Bown, Jennifer Marks (2004) BA, Brigham Young U., 1991; MA, MEd, PhD, Ohio State U., 1993, 1999, 2004.
Brewer, Cindy L. (1998) BA, MA, Brigham Young U., 1990, 1991; PhD, U. of Utah, 1998.
Brown, N. Anthony (2004) BA, Southern Methodist U., 1998; MA, PhD, Bryn Mawr Coll., 2002, 2004.
Kelly, Michael R. (1993) BS, MPA, Brigham Young U., 1978, 1983; MA, PhD, Ohio State U., 1990, 1996.
Lund, Randall J. (1988) BA, MA, Brigham Young U., 1970, 1973; PhD, U. of Minnesota, 1986.
McFarland, Robert B. (2001) BA, MA, Brigham Young U., 1992, 1995; PhD, U. of California, Berkeley, 2000.
Smith, Laura Catharine (2004) BA, BEd, Queen's U., Kingston (Canada), 1994, 1995; MA, U. of Calgary (Canada), 1997; MA, PhD, U. of Wisconsin, Madison, 2000, 2004.
Solovieva, Raissa (1992) BA, Tomsk State U., Russia, 1971; MA, Novosibirsk State U., Russia, 1982; PhD, Kharkov State U., Ukraine, 1987.

Instructor

Purves, Mark R. (2006) AA, Ricks Coll., 1997; BA, Brigham Young U., 2001; MA, U. of Virginia, 2006.

Emeriti

Baker, Joseph O. (1967) BA, U. of Utah, 1964; PhD, Tulane U., 1968.
Browning, Gary L. (1974) BA, Brigham Young U., 1965; MA, Syracuse U., 1967; PhD, Harvard U., 1974.
Davis, Garold Neil (1968) BA, MA, Brigham Young U., 1958, 1959; PhD, Johns Hopkins U., 1962.
Folsom, Marvin H. (1961) BA, MA, Brigham Young U., 1956, 1957; PhD, Cornell U., 1961.
Jarvis, Donald K. (1970) BA, Brigham Young U., 1964; PhD, Ohio State U., 1970.
Jones, Randall L. (1978) BA, MA, Brigham Young U., 1963, 1964; MA, PhD, Princeton U., 1966, 1970.
Lyon, James K. (1994) BA, MA, U. of Utah, 1958, 1959; PhD, Harvard U., 1963.
Michailova, Victoria V. (1990) Dipl, Hertzen Pedagogical Inst., St. Petersburg, Russia, 1972.
Plummer, Thomas G. (1985) BA, U. of Utah, 1965; MA, PhD, Harvard U., 1966, 1972.
Rogers, R. Max (1945) BA, MA, Brigham Young U., 1940, 1942; PhD, Stanford U., 1951.
Rogers, Thomas F. (1969) BA, U. of Utah, 1955; MA, Yale U., 1962; PhD, Georgetown U., 1968.
Speidel, Walter H. (1963) Abitur, Germany, 1940; Diplomdolmetscher und -Übersetzer, Fachhochschule für das Dolmetscherwesen, Stuttgart, Germany, 1948; MA, U. of Utah, 1960; PhD, U. of Kansas, 1963.
Watkins, Arthur R. (1952) BA, MA, Brigham Young U., 1941, 1942; PhD, Stanford U., 1948.

Greek (Modern)

See Center for Language Studies.

Guarani

See Center for Language Studies.

Haitian Creole

See Center for Language Studies.

Hawaiian

See Center for Language Studies.

Health Science

Brad L. Neiger, Chair
221 RB, (801) 422-3313

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

All degree programs in the Department of Health Science are open enrollment. In addition, special limitations apply for teaching majors.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Public Health Education
BS	School Health Education
Minors	Health Education
	Driver Safety Education

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MPH	Public Health

For more information see the BYU 2007–2008 Graduate Catalog.

BS Public Health Education (55 hours*)

The Discipline

Public health educators are trained to plan, implement, and evaluate community health interventions. Courses provide students with an overview of chronic and infectious disease, injury prevention, substance abuse, environmental health, reproductive health, first aid, consumer health, fitness, nutrition, and spiritual/mental health. Using the tools of education, behavior change, social marketing, health communication, community mobilization, coalitions, policy, and advocacy, health educators are employed under a range of job titles: community health specialists, patient educators, health promotion specialists, community organizers, and health program managers.

Career Opportunities

Typical daily activities include working with media, meeting with various coalitions, developing educational materials, planning needs assessments, evaluating interventions, and making presentations. Public health educators are trained to mobilize citizens to develop population-based solutions to important health issues and to improve the health of families and communities.

Public health graduates are qualified to work in governmental health agencies on the local, state, federal, and international levels. Private-sector employment can be found in managed care organizations (MCOs), hospitals, clinics, voluntary health agencies and non-governmental organizations. Opportunities for employment in public health are competitive. Students can

increase the likelihood of obtaining a position by balancing classroom activities with voluntary or paid service to health agencies. Obtaining skill-based certifications and careful development of a professional portfolio enhance employment opportunities. Entry-level salaries generally begin at $30,000 or higher. However, salaries will vary based on the specific organization and geographic location.

During the last two semesters, students will complete a 6-credit-hour, 300-hour internship that will give them an opportunity to apply the concepts they have learned in class to the real world. It is also an opportunity to begin networking with professionals and gain experience to include on their resumé. Internships can be completed at a variety of locations throughout Utah, the nation, and internationally.

Major Requirements

1. Complete the following courses:
   Hlth 200, 302, 365, 375, 394, 395, 396, 461, 462, 498.
   PDBio 205.
   Stat 221.
2. Complete 6 hours of the following:
   Hlth 496R.
3. Complete 8 hours of the following:
   Hlth 320, 370, 383, 403R, 420, 436, 450, 452, 460, 466, 480, 490, 491R.
4. Complete 6 hours from the following:
   Bus M 340.
   Comms 211, 235.
   Econ 230.
   IAS 220.
   MMBio 221, 222.
   NDFS 100, 201.
   PDBio 220.
   Psych 361.
   Soc 113.
   Stat 334.
   TMA 150.

*Hours include courses that may fulfill university core requirements.

BS School Health Education (74–79 hours, including licensure hours)

The Discipline

The health teaching major prepares students to become health educators in secondary schools. Curriculum development, instructional methods, acquisition and evaluation of resources, and assessment are among the skills required. Health educators teach decision making and effective communication, addressing such areas of concern as substance abuse and addictive behaviors, human sexuality, chronic disease, nutrition, consumer advocacy, emergency care, and injury prevention.

Adolescence is a time where habits are being established and attitudes are being formed that will influence people the rest of their lives. The health educator plays an important role in teaching knowledge and skills that will enable young people to cope and to flourish in healthy ways in an ever-changing society.

Career Opportunities

Graduates seek careers teaching health in the secondary schools in combination with a chosen minor. With an advanced degree, career teaching positions at institutions of higher learning become accessible.

Major Requirements

1. An approved teaching minor must be completed (approximately 16–21 hours).
2. Complete the following:
   Hlth 200, 320, 370, 420, 436, 460, 461.
   NDFS 100.
3. Complete 6 hours from the following:
   Hlth 365, 383, 450, 452, 462, 466, 480.
   PDBio 205.
4. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      Hlth 276R, 381, 421.
      IP&T 286.
      Sc Ed 350, 353, 379.

      Note: Hlth 200 is prerequisite to Hlth 381, 421.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Hlth 381 and 421.
   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.

Minor Health Education (23 hours)

Minor Requirements

1. Complete the following:
   Hlth 200, 320, 381, 421, 436, 460.

   Note: Hlth 200 is prerequisite to Hlth 381, 421.
2. Complete 5 hours from the following:
   Hlth 365, 370, 383, 420, 450, 452, 461, 462, 466, 480.

Minor Driver Safety Education (16 hours)

Minor Requirements

1. Complete the following:
   Hlth 444, 445, 446, 460.
2. Complete 5 hours from the following:
   Hlth 320, 402R, 420.
3. Students majoring in health sciences may not double-count hours in the driver education minor.

Health/Physical Education (HEPE)

Undergraduate Courses

105. Healthy Living. (0.5:1:0)
Scientific evidence supporting the importance of a healthy lifestyle. Students will engage in healthy nutritional and exercise practices.

129. Fitness and Lifestyle Management. (2:2:1)
Why a healthy lifestyle is needed and how to write individualized programs to meet these needs.

Health Science (Hlth)

Undergraduate Courses

10. Beginning Driver Education. (0:0:2)
Satisfies the prerequisite necessary to apply for the Utah driver's license. No driving experience necessary. Fee.

200. Foundations of Health Education. (3:3:0) F, W
Introduction to health education, emphasizing the history, philosophy, and foundations of professional practice in school and public health settings.

201. Contemporary Issues for Student Athletes (2:2:0) F, W
Eligibility issues for intercollegiate student athletes. Skills relating to academic performance and career selection.

276R. Exploration of Teaching. (3:Arr.:Arr. ea.) F, W Prerequisite: major area preadmission requirements.
Field-based initial teaching experience directed at helping prospective teachers experience demands and opportunities associated with teaching secondary students.

302. Computer Applications in Health Education. (3:1:0) F, W, Sp
Exploring computer applications in health sciences: health assessments, risk approvals, health program planning and database access, computer-assisted instruction, biostatistical health applications, medical-legal issues. Should be taken sophomore year.

320. Advanced First Aid and Safety. (3:3:0) F, W, Su
In-depth coverage of first aid procedures for injuries and sudden illness. Leads to first aid and CPR certifications.

361. School Health for Elementary Teachers. (2:2:0) F, W, Sp
Preparing for role as a health educator, emphasizing skill-based teaching methods and acquisition of teaching resources.

365. Health Behavior Theories. (3:3:0) F, W, Sp Prerequisite: Hlth 200.
Understanding health behavior change theories for individuals and populations. Practical application of related models and theories.

370. Consumer Health. (2:2:0) Independent Study also.
Current consumer health issues; selecting proper health products, services, and information; sources of consumer health protection.

375. Principles of Epidemiology. (3:3:0) F, W, Sp Prerequisite: Hlth 200, 302, Stat 221.
Applying analytical tools to study acute and chronic disease to facilitate investigation and control of epidemics.

381. Health Education Teaching Methods. (3:3:0) F, W, Sp Prerequisite: Hlth 200, 276R; fingerprinting and FBI clearance.
Teacher and student activities required for conceptual learning in health science.

383. Mind/Body Health. (2:2:0) F, W, Sp
Theories and research on the effect of emotions and attitudes on health: how negative emotions increase disease susceptibility and positive emotions encourage immune strength, health, and healing.

394. Public Health Education Methods. (3:2:1) Prerequisite: Hlth 200, 302, Stat 221.
Health promotion interventions and strategies that influence behaviors and advance public health practices within communities.

395. Social Marketing in Public Health Education. (3:3:0) Prerequisite: Hlth 200, 302, Stat 221.
Social marketing, including formative research, audience analysis, segmentation, marketing mix, strategies, pretesting; application to public health education.

396. Program Planning and Evaluation. (3:3:0) Prerequisite: Hlth 200, 302, 394, 395, Stat 221.
Introduction to needs assessment, program development, implementation, and program evaluation in public health education.

402R. Driver and Safety Education Workshop. (1–7:0:2 ea.) Independent Study also.
Current safety education problems.

403R. Health Problems Workshop. (1–5:Arr:Arr.ea.)

420. Injury Prevention. (2:2:0) F, W Independent Study also.
Concepts and interventions for injury prevention; safety instruction.

421. Secondary Health Education Curriculum and Practicum. (4:3:Arr.) F, W Prerequisite: Hlth 200, 276R, 381.
Implementing meaningful, engaging instruction for secondary students in health education; program planning and evaluation; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance. Practicum required.

436. Sexuality Education in the Curriculum. (3:3:0) F, W, Sp
Preparing prospective teachers to teach sexuality education related to health curricula. Maturation, family health issues, parenthood, interpersonal skills, and related pedagogy issues.

444. Organization and Administration of Driver and Traffic Safety Education. (2:2:0) F Independent Study also.
Organization, administration, and supervision of high school driver education programs.

445. Driver and Traffic Safety Education. (4:2:4) W, Su Prerequisite: Hlth 444.
Prepares teachers to instruct classroom and behind-the-wheel phases of driver education.

446. Driver Simulators and Driving Ranges. (2:2:1) W, Su
Simulator and multiple-car driving range methodology, emphasizing operation and maintenance.

450. Women's Health Issues. (3:3:0) F, W, Sp
Overview of selected health topics affecting women's health status. Primary emphasis on steps to enhance personal health and fulfill divine roles from childhood through adulthood.

452. Environmental Health. (3:3:0) F, W, Su
Environmental factors as determinants of human health: ecosystem and population dynamics; biological, chemical, and physical hazards; risk assessment; economic, political, cultural, and genetic factors.

460. Substance Abuse and Addictive Behavior. (3:3:0) F, W, Su
Physiological, psychological, sociological, and legal implications of drug use and addictive behaviors, emphasizing nature, cause, treatment, and prevention.

461. Chronic Diseases: Prevention and Control. (3:3:0) Prerequisite: Hlth 200, PDBio 205.
Pathogenesis, epidemiology of major chronic diseases, health costs to society, at-risk populations, population-based prevention, and related best-practice interventions.

462. Infectious Disease. (3:3:0) Prerequisite: Hlth 200, PDBio 205.
Human infectious disease risk factors; bacterial, viral, and parasitic agents; pathology, diagnosis, treatment, prevention, and control; communicable, vector-borne, zoonotic, and bioterror diseases of public health.

466. Health and the Aging Process. (2:2:1) Independent Study also.
Theories of aging as a normal process, as a pathological process; health promotion and extension of life.

480. International Health. (3:3:0)
Identifying disease patterns in "developing" countries, exploring the social and cultural context of health, and reviewing behavior change strategies for improving well-being.

490. Current Issues in Public Health Education. (2:2:0) Prerequisite: health science major; junior or senior status.
Contemporary research, literature, and views as applied to public and international health.

491R. Mentored Research. (1–3:Arr.:0 ea.)
Collaboration with professors on mentoring grants or other public health–related research and initiatives.

496R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: Hlth 302, 375, 394, 395, 396.
On-the-job experience.

498. Public Health Education Career Preparation. (2:2:0) Prerequisite: Hlth 200, 302, 375, 394, 395, 396, 496R, Stat 221.
Preparation for employment, graduate school, and the Certified Health Education Specialist Exam. For senior-level public health education majors within six-months of graduation.

500-Level Graduate Courses (available to advanced undergraduates)

550. Field Epidemiology. (3:3:0) Prerequisite: instructor's consent.
Applying epidemiologic methods to unexpected health problems when a rapid on-site investigation is necessary for timely intervention.

599R. Academic Internship. (1–9:Arr.:Arr. ca.) Prerequisite: completion of a major in health sciences or graduate student status in health sciences.
On-the-job experience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Health Science Faculty

Professors

Barnes, Michael D. (1997) BS, MS, Brigham Young U., 1989, 1990; PhD, Southern Illinois U., Carbondale, 1993.
Cole, Eugene C. (2002) BA, Adelphi U., 1968; MSPH, DRPH, U. of North Carolina, 1979, 1983.
Hawks, Steven R. (2000) BA, MA, MBA, EdD, Brigham Young U., 1982, 1985, 1985, 1990.
Heiner, Steven W. (1969) BS, MS, EdD, U. of Utah, 1955, 1962, 1969.
Karren, Keith J. (1971) BS, MS, Brigham Young U., 1969, 1970; PhD, Oregon State U., 1975.
Lindsay, Gordon B. (1994) BS, Brigham Young U., 1978; MS, U. of Utah, 1980; PhD, Ohio State U., 1984.
Merrill, Ray M. (1998) BA, MS, Brigham Young U., 1986, 1989; PhD, Arizona State U., 1994; MPH, Harvard U., 1995.
Neiger, Brad L. (1997) BS, MS, Brigham Young U., 1983, 1984; PhD, U. of Utah, 1991.
Page, Randy M. (2003) BS, MHE, Brigham Young U., 1979, 1980; PhD, Southern Illinois U., 1982.
Thygerson, Alton L. (1967) BS, MHEd, EdD, Brigham Young U., 1962, 1965, 1969.

Associate Professors

Dearden, Kirk Allen (2002) BA, Boston U., 1985; DPH, MPH, U. of Alabama, Birmingham, 1990, 1988.
Hanson, Carl Lee (2005) BS, MS, Brigham Young U., 1990, 1991; PhD, Southern Illinois U., Carbondale, 1994.
Novilla, M. Lelinneth L. B. (2003) BS, U. of the Philippines, 1985; MPH, U. of Utah, 1999; MD, U. of the City of Manila, Philippines, 1990.
Thackeray, Rosemary (2000) BS, Utah State U., 1991; MPH, PhD, U. of Utah, 1996, 2000.

Assistant Professor

Coon, Paul E. (1972) BS, MS, Brigham Young U., 1968, 1972.

Associate Lecturer, Community Health Advisor and Internship Specialist

Cazier, Calvert F. (2004) BS, U. of Utah, 1973; MPH, U. of Tennessee, 1974.

Emeriti

Burgener, O. Robert (1964) BS, Utah State U., 1953; MPH, U. of California, Berkeley, 1964; PhD, U. of Utah, 1972.
Hirschi, Willard M. (1964) BS, Brigham Young U., 1956; MS, Arizona State U., 1960.
Hurley, D. Richard (1971) BS, MS, Brigham Young U., 1963, 1964; PhD, Southern Illinois U., 1971.
James, Sherald W. (1962) BS, MS, Brigham Young U., 1956, 1962.
Petersen, Ray A. (1969) BS, MHEd, Brigham Young U., 1960, 1965.
Rhodes, Ronald L. (1962) BS, Elmhurst Coll., 1957; MS, Brigham Young U., 1962; PhD, Oregon State U., 1971.
Salazar, Richard D. (1963) BS, MS, Brigham Young U., 1958, 1962; PhD, Southern Illinois U., Carbondale, 1972.
Tuckett, Glen C. (1959) BS, U. of Utah, 1953; MS, EdD, Brigham Young U., 1962, 1975.

Hebrew

See Asian & Near Eastern Languages.

Hindi

See Center for Language Studies.

History

Arnold H. Green, Chair
2130 JFSB, (801) 422-8056

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of History are open enrollment. However, special limitations apply for teaching majors.

The Discipline

History stands at the heart of a liberal arts bridge between the humanities and social sciences. Historical understanding is thus basic to the life of an educated human being. As such, it is the ideal major for the student who wants the broad educational background for entrance into professions such as law, government service, or business, or who wants a liberal arts education. History can also be valuable training for someone who plans to teach.

Career Opportunities

In recognition of the broad range of uses to which historical education can be put, the field of public history has emerged in recent years. Today people whom others would consider bankers, lawyers, corporate executives, or public servants view themselves as historians—public historians. They are the people with analytical skills provided by their historical education who work outside the university but who consider themselves historians by virtue of the value of the training they have received. A significant percentage of the jobs listed by firms and agencies with BYU's Employment Office specify no major. Many of these will be taken by public historians anxious to serve their employers with the valuable skills learned in their history major.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Family History–Genealogy
BA	History
BA	History Teaching
Minors	Family History–Genealogy
	History
	History Teaching
	Native American Studies
Cert	Family History–Genealogy

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	History

For more information see the BYU 2007–2008 Graduate Catalog.

BA Family History–Genealogy (51–68 hours*)

Major Requirements

1. Complete one course from the following in fulfillment of the university core First-Year Writing requirement:
   Engl 115, 150.
   Honrs 150.
   Phil 150.

   Note: Waivers based on Advanced Placement (AP) or other test scores do not apply to this requirement. Students with AP credit for Engl 115 should take Engl 150, Honrs 150, or Phil 150.

2. Complete one course from the following in fulfillment of the university core Advanced Languages requirement:
   An approved culminating foreign language course.
   Honrs 250.
   Phil 305.
   Stat 221.

   Note: These courses, and their prerequisites, impart linguistic or quantitative skills advantageous to historical research.

3. Complete one course from the following:
   Hist 220, 221.

4. Complete the following:
   Hist 200, 400, 433, 480, 490.
   Rel C 261.

   Note: For majors Hist 200 is considered a prerequisite for all 300- and 400-level courses. It must be completed no later than the sophomore year or in the first semester/term after the major is declared. Hist 200 and 490 combined satisfy the university core Advanced Written and Oral Communications requirement.

5. Complete two courses from the following:
   Hist 401, 402, 403, 404, 405, 406R, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.

   Note: It is recommended that students focus on one geographical area. Majors should consult with the family history coordinator soon after declaring.

6. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.

7. Complete one course from the following:
   Rel C 262, 263, 264, 265, 266, 267, 268, 269.

8. Complete the following:
   Hist 482.

9. Complete a minimum of 3 hours of the following:
   Hist 496R.

10. Complete one course from the following:
    Hist 251, 319, 320, 357, 377, 378, 384, 387.

11. Complete one course from the following:
    Hist 252, 306, 322, 323, 324, 325, 328, 329, 330, 332, 355, 356.

12. Complete one additional course from section 5 or 6 above.

Recommended

Hist 201, 202.

Majors are strongly encouraged to minor in a field that further enhances their preparation for employment or graduate school. Consult with faculty.

*Hours include courses that may fulfill university core requirements.

Minor Family History–Genealogy (24 hours*)

Minor Requirements

1. Complete the following:
   Hist 400.
   Rel C 261.
2. Complete one course from the following:
   Rel C 262, 263, 264, 265, 266, 267, 268, 269.
3. Complete 6 hours from the following:
   Hist 401, 402, 403, 404, 405, 406R, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.
4. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.
5. Complete one course from the following:
   Hist 251, 319, 322, 325, 332, 364, 365, 370, 378.
6. Complete one additional course from items 3 and 4 above.
7. Complete one course (3 hours) from the following:
   Hist 480, 482, 496R.

*Hours include courses that may fulfill university requirements.

Certificate Family History–Genealogy (18 hours)

The certificate will state the student's geographic area of concentration.

Certificate Requirements

1. Complete the following:
   Hist 400.
2. Complete one course from the following:
   Hist 420, 421, 422, 423, 424, 425.
3. Complete 6 hours from the following:
   Hist 401, 402, 403, 404, 405, 406, 408R, 409R, 410R, 411R, 412, 413, 414, 415, 416.
4. Complete 6 hours from the following:
   Hist 480, 481R, 482, 496R, or a general history course in the geographic area of specialization.

Note: The certificate program can help prepare for certification or accreditation but should not be confused with these two separate, private methods of qualifying professional genealogists.

BA History (45–62 hours*)

Major Requirements

1. At least 24 hours of history credit must be completed in residency at BYU's Provo campus. BYU Independent Study courses do not count toward residency.
2. Complete one of the following courses in fulfillment of the university core First-Year Writing requirement:
   Engl 115, 150.
   Honrs 150.
   Phil 150.

   Note: Waivers based on Advanced Placement (AP) or other test scores do not apply to this requirement. Students with AP credit for Engl 115 are encouraged to take Engl 150, Honrs 150, or Phil 150.
3. Complete one course from the following in fulfillment of the university core Advanced Languages requirement:
   An approved culminating foreign language course.
   Honrs 250.
   Phil 305.
   Stat 221.

   Note: These courses, and their prerequisites, impart linguistic or quantitative skills advantageous to historical research.
4. Complete the following:
   Hist 200.

   Note: For majors Hist 200 is considered a prerequisite for all elective courses. It must be completed no later than the sophomore year or in the first semester/term after the major is declared. Hist 200 and 490 combined satisfy the university core Advanced Written and Oral Communications requirement.
5. Complete the following core courses:
   Hist 201, 202, 220, 221.

   Note: Majors must complete all four core courses in history at the college level. University core Civilization courses (201/202) offered by other departments are not equivalent. Advanced Placement U.S. history courses are not equivalent.
6. Complete seven electives (21 total hours) from the approved list. Seek faculty advice in choosing electives. Students must not present all their preparation in a single region. Complete three electives (9 hours) by taking at least one course in three of the following areas of study: Asia, Europe, Latin America, Near East, United States, Africa, or the world. (Course regions are identified on the approved list.) Majors are urged to focus their remaining four electives on a single theme, region, or period.

   Note: No more than 6 combined hours of 199R, 495R, and 498R will count toward elective credit.
7. Complete the following capstone course:
   Hist 490.

Recommended

Majors are strongly encouraged to minor in a field that further enhances their preparation for employment or graduate school. Consult with faculty.

*Hours include courses that may fulfill university core requirements.

BA History Teaching (67–84 hours*, including licensure hours)

Major Requirements

1. At least 18 hours of history credit must be completed in residency at BYU's Provo campus. BYU Independent Study courses do not count toward residency.
2. Complete one of the following courses in fulfillment of the university core First-Year Writing requirement:
   Engl 115, 150.
   Honrs 150.
   Phil 150.

   Note: Waivers based on Advanced Placement (AP) or other test scores do not apply to this requirement. Students with AP credit for Engl 115 are encouraged to take Engl 150, Honrs 150, or Phil 150.

3. Complete one course from the following in fulfillment of the university core Advanced Languages requirement:
   An approved culminating foreign language course.
   Honrs 250.
   Phil 305.
   Stat 221.

   Note: These courses, and their prerequisites, impart linguistic or quantitative skills advantageous to historical research.

4. Complete the following:
   Hist 200.

   Note: For majors Hist 200 is considered a prerequisite for all elective courses. It must be completed no later than the sophomore year or in the first semester/term after the major is declared. Hist 200 and 490 combined satisfy the university core Advanced Written and Oral Communications requirement.

5. Complete the following core courses:
   Hist 201, 202, 220, 221.

   Note: Majors must complete all four core courses in history at the college level. University core Civilization courses (201/202) offered by other departments are not equivalent. Advanced Placement U.S. history courses are not equivalent.

6. Complete the following:
   Hist 364.

7. Complete four electives (12 total hours) from the approved list. Seek faculty advice in choosing electives. Students must not present all their preparation in a single region. Complete no more than two electives (6 hours) in each of the following areas of study: Asia, Europe, Latin America, Near East, United States, Africa, or the world. (Course regions are identified on the approved list.)

   Note: No more than 6 combined hours of 199R, 495R, and 498R will count toward elective credit.

8. Complete the following capstone course:
   Hist 490.

9. A teaching minor is strongly recommended.

10. Complete the Professional Education Component:
    a. Complete the following:
       CPSE 402.
       IP&T 286.
       Sc Ed 276R, 350, 353, 377R, 378, 379.

       Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Sc Ed 276R.

    b. Complete 12 hours of one of the following:
       Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor History (21 hours*)

Minor Requirements

1. At least 9 hours of history credit must be completed in residency at BYU's Provo campus. BYU Independent Study courses do not count toward residency.
2. Complete the following:
   Hist 200.
3. Complete the following core courses:
   Hist 201, 202, 220, 221.

   Note: Minors must complete all four core courses in history at the college level. University core Civilization courses (201/202) offered by other departments are not equivalent. Advanced Placement U.S. history courses are not equivalent.
4. Complete 6 hours from the approved list of elective courses.

*Hours include courses that may fulfill university core requirements.

Minor History Teaching (21 hours*)

Minor Requirements

1. At least 6 hours of history credit must be completed in residency at BYU's Provo campus. BYU Independent Study courses do not count toward residency.
2. Complete the following prerequisite course:
   Hist 200.
3. Complete the following core courses:
   Hist 201, 202, 220, 221.

   Note: Minors must complete all four core courses in history at the college level. University core Civilization courses (201/202) offered by other departments are not equivalent. Advanced Placement U.S. history courses are not equivalent.
4. Complete 6 hours from the approved list of elective courses.

Note: The history teaching minor is intended for students who are pursuing secondary education licensure through the David O. McKay School of Education.

*Hours include courses that may fulfill university core requirements.

History (Hist)

Undergraduate Courses

190R. Thetean Publication. (2:0:2 ea.) W on blk. Prerequisite: Hist 200.
Editing, production, and publication of student academic journal *The Thetean.*

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

200. The Historian's Craft. (3:3:0)
History within the broader framework of liberal education; nature of history; questions historians ask; skills and resources needed to study, understand, and write history. Required of all history majors.

201. World Civilization to 1500. (3:3:0) Honors also.
World civilization from Greek antiquity to Renaissance; explores fundamental questions in the human experience, examines formative events in history, and seeks to teach value of important texts.

202. World Civilization from 1500. (3:3:0) Honors also. Prerequisite: Hist 201.
World civilization from Renaissance to present; explores fundamental questions in the human experience, examines formative events in history, and seeks to teach value of important texts.

220. The United States Through 1877. (3:3:0) Independent Study also.
Discovery, colonization, American Revolution, establishment of the Constitution, foreign affairs, westward expansion, slavery, sectionalism, Civil War, and reconstruction.

221. The United States Since 1877. (3:3:0) Independent Study also.
Industrialization, immigration, urbanization, political and social movements, and foreign policy.

231. Introduction to East Asian History. (3:3:0)
Major themes in the history, thought, and culture of Asian societies from antiquity to the present.

238. Ancient Near East to 330 B.C. (3:3:0) F
Ancient cultures of the Near East (Egypt, Mesopotamia, Syro-Palestine, Anatolia, Iran) from the beginnings of civilization to the conquests of Alexander the Great.

239. Ancient Near East, 330 B.C. to 640 A.D. (3:3:0) W
Cultures and empires of the Near East (Persia, Hellenistic kingdoms, Judaism, early Christianity, Rome, and Byzantium) from Alexander the Great to the Arab conquests.

240. Middle East History to 1800. (3:3:0) F
History of the Middle East from the rise of Islam until 1800.

241. Middle East History from 1800. (3:3:0) W
History of the Middle East in the modern period from 1800; rise of nation states, relationship with West, role of Islam.

242. (Hist-NES 347) Arab and Islamic Civilization. (2:2:1)
Social science/humanities core course covering Arab and Islamic civilization; historical evolution of Middle East to present. Overview of modern Palestinian society. Offered at Jerusalem Center for Near Eastern Studies; elective credit for major and minor in Near Eastern Studies. Does not receive GE credit.

243. (Hist-NES 349) Jewish Civilization. (2:2:1)
Social science/humanities core course; broad introduction to Jewish self-understanding and history, focusing on relationships among people, faith, and land. Offered at Jerusalem Center for Near Eastern Studies. Does not receive GE credit.

244 Jewish History: A.D. 70 to the Present. (3:3:0)
Jewish diaspora, Jewish life in Moslem and Christian countries; Jewish religious movements; development of Zionism; Jewish communities in modern Israel and the United States.

247. (Hist-Cl Cv 304) Greek History. (3:3:0)
Political, economic, social, and intellectual history of Greece from Mycenaean times to the Hellenistic period.

248. (Hist-Cl Cv 307) Roman History. (3:3:0)
Political, economic, social, and intellectual history of Rome from the foundation of the city to Constantine.

251. Conquest and Colonization of Latin America. (3:3:0)
Pre-Columbian civilizations, Iberian exploration and conquest of the New World, and colonial development of Hispanic and Portuguese America from 1492 to 1823.

252. Modern Latin America. (3:3:0)
National period (1810 to present): independence, institutional development, culture, and inter-American relations.

290. Nature and History: The Earth's Environmental Past. (3:3:0)
Human historical interactions with animals, plants, and landscapes. Global histories of climate, population, whaling, fossil fuels, the car, animal rights, suburban sprawl, eco-theology, environmentalism, ecotourism, etc.

291. History of Science. (3:3:0)
Scientific tradition from its beginnings in Mesopotamia to the modern period: ideas, practice, and social impact. Previous course work in science or philosophy helpful.

292. Food and History. (3:3:0)
History of tomatoes, potatoes, sugar, and spice. How food and foodways engage broader historical questions and illuminate aspects of human cultures.

293. World War II: A Global Perspective, 1939–1945. (3:3:0)
Causes, flow, and consequences of World War II emphasizing the American experience at home and abroad.

300. The Early Middle Ages. (3:3:0)
Decline of Rome and the early formative stages of early medieval civilization; analysis of political, economic, and social changes from A.D. 285 to 950.

301. The Late Middle Ages. (3:3:0)
Europe from 950 to 1350; maturation of medieval civilization; failure of German, success of French leadership; economic, religious, cultural, intellectual trends.

302. The Italian Renaissance. (3:3:0)
Major political, social, and cultural events in Italy from 1200 to 1530, emphasizing concept of the Renaissance in modern historiography.

303. The Reformation: Age of Turmoil. (3:3:0)
Sixteenth-century religious upheaval; ideological, cultural, political, and socioeconomic struggles to mid–seventeenth century.

304. The Expansion of Europe, 1400–1800. (3:3:0)
Early voyages of discovery and the actions of Europeans in the wider world from about 1400 to 1800.

305. The Age of Enlightenment. (3:3:0)
Developments in Europe from 1650 to the French Revolution, emphasizing political thought, science, and philosophy in the Enlightenment.

306. Nineteenth-Century Europe. (3:3:0) Independent Study also.
Political, economic, social, and intellectual history of Europe from 1815 to 1914.

307. Europe Since 1914. (3:3:0)
International affairs and political and economic history of major European countries (including Russia) from World War I to the present.

309. European Revolutions Since 1500. (3:3:0) W even yr.
Social and political revolutions in European history since 1500. Successful and unsuccessful cases of state breakdown; the Dutch Revolt, English Revolution, French Revolution, Revolution of 1848, and Russian Revolution.

310. European Economic History. (3:3:0)
Economic development of Europe from antiquity to the early twentieth century; impact of the economy on social and political institutions.

312. History of Ideas. (3:3:0)
Interrelationship of influential ideas and historical events from the end of the eighteenth century to the present.

314. European Fascisms, 1914 to Present. (3:3:0)
Political, cultural, and social bases of fascist movements, especially in Italy, Germany, and Spain. Rise to power, family policies, warfare, propaganda, racism, genocide, neofascisms.

315. European Jews and the Holocaust. (3:3:0)
Attempted genocide of European Jews by Hitler's Third Reich; motives, methods, and implications.

316. History on Film. (3:2:Arr.) Prerequisite: Hist 201 or 202, preferably both. Recommended: upper-level courses in medieval and early modern European history.
Effectiveness of film as a medium of history, emphasizing works on European history; its strengths and weaknesses compared to traditional approaches.

319. The Family in Europe. (3:3:0) Independent Study also.
Nature and development of marriage and family life and structure from the ancient to modern era.

320. Society in Europe. (3:3:0)
Common life in Europe from 1500 to the present: family problems, social customs, marriage, superstition, death, diet, work, hardships, migration, and childhood.

322. English History to 1689. (3:3:0) Independent Study also.
Political, social, and cultural developments from prehistoric times to the Glorious Revolution. Medieval, Tudor, and Stuart periods.

323. English History Since 1689. (3:3:0)
Emergence of Britain as a great colonial and industrial power, as well as more recent decline of Britain's influence. Emphasis also on cultural developments.

324. France. (3:3:0)
French history from Roman times to the present, emphasizing the French Revolution, Napoleon, and subsequent developments.

325. Spain. (3:3:0)
Political, social, and economic factors in Spanish history from Roman times to present. Emphasis on Reconquest, Golden Age, and Civil War.

327. Italy in the Modern World Since 1848. (3:3:0)
Political, social, economic, and cultural history of Italians and the Italian peninsula in Europe and the world, including nationalism, church and state, migration, Mafia, fascism, and European union.

328. Modern Germany. (3:3:0)
Political, military, economic, and cultural development of Germany during the nineteenth and twentieth centuries.

329. Austrian Empire. (3:3:0)
Historical survey (1526–1918) of area ruled by Hapsburg dynasty comprising lands and people of East-Central Europe.

330. Tsarist Russia. (3:3:0)
Major social, political, and economic developments of Russia from the founding of the Kievan state to the 1905 Revolution.

331. Twentieth-Century Russia. (3:3:0)
Rise and fall of the Soviet Union and recent attempts to refashion the Russian economy and government.

332. Scandinavian History. (3:3:0)
Political, social, religious, cultural, and economic factors in Denmark, Finland, Iceland, Norway, and Sweden from Viking era to present highly developed society.

333. History of Russia's Women. (3:3:0)
Introduction to history of Russia's women from 900s through present. Impact of religion, social class, economic change, and politics on life and status of these women.

335. Crusades. (3:3:0)
Age of Holy Wars in the eastern Mediterranean and Near East, 1050–1300. Focus on both Europe and Near East.

339R. Topics in Modern Near Eastern History. (3:3:0 ea.)
Closer examination of the history of appropriate delimited topic than possible in general survey course. Topics may include modern Islamic movements, modern Egypt, or modern North Africa.

340. Traditional China. (3:3:0)
From a loose federation of Neolithic societies, Chinese civilization emerges as East Asia's dominant political and cultural force; developments to ca. 1500.

341. Modern China Since 1500. (3:3:0)
Economic and political foundations of modernity during high Imperial China; challenge of new order from the West; rise of Chinese nationalism, revolution, and development.

342. Twentieth-Century China. (3:3:0)
China's twentieth-century struggles to find a working modernity via revolution: anti-imperial, nationalist, communist, and capitalist.

343. Traditional Japan. (3:3:0)
Political, social, religious, and cultural developments to ca. 1700.

344. Modern Japan. (3:3:0)
Main themes in Japanese history from Tokugawa times to the present.

345. Japanese Cultural History. (3:3:0)
Theories and methods of cultural historians; in-depth investigation of specific topics in Japanese culture; may include gender, nature/animals, material culture, etc.

346. Korea. (3:3:0)
Political, religious, and cultural development from antiquity to the present.

347. Chinese Cultural History. (3:3:0)
Methods and approaches of the cultural historian; in-depth investigation of a selected topic in Chinese cultural history. Topics may include women, Silk Roads, material culture, etc.

348. Modern Southeast Asia. (3:3:0)
Complex history of the varied nations of this vast area: religion, colonialism, nationalism, independence.

349. History of Asian Religions and Thought. (3:3:0)
Major themes in religion, philosophy, and ideas in Asia.

355. History of Argentina. (3:3:0)
Rise of modern Argentina from colonial times, focusing on the dynamic political, economic, social, and cultural developments since independence.

356. Brazil. (3:3:0)
From 1500 to present, emphasizing relationship between colonial patterns and twentieth-century reality and dilatory transformation of Brazil's political and economic culture.

357. The Indian in Latin American History. (3:3:0)
History of Latin American Indians from preconquest days to the present; achievements, contributions, and problems.

358. Gender and History in Latin America. (3:3:0)
How gender roles have been defined legally, socially, and culturally in Latin America from the colonial period to the present, emphasizing the nineteenth and twentieth centuries.

359. Inter-American Relations. (3:3:0)
Decline of Europe's American empires, legacies bequeathed to the new republics by their European heritage, and how those legacies have affected relations among the various American republics.

360. American West to 1900. (3:3:0)
The American West as a place of great diversity. Topics include Native American societies, European colonization, explorations, the fur trade, overland migrations, Indian relations, mining, settlement, and the environment.

361. The American West Since 1900. (3:3:0)
Pivotal developments in the twentieth-century West, including urbanization, Sun Belt migration, political protest, labor history, Native American history, immigration, water policy, tourism, military-industrial complex, Hollywood.

362. France in the Americas. (3:3:0)
French exploration and colonization; relations with native peoples; colonial societies in the Caribbean, Louisiana, the Mississippi Valley, and Canada; slavery and the Haitian Revolution; persistence of French territories and francophone populations.

363. The Spanish Frontier in North America. (3:3:0)
Spanish exploration, occupation, and institutions of northern Mexico, the American Southwest, and Florida, 1521–1821; Mexican period to 1848.

364. Utah. (3:3:0)
Contributions of Native Americans, explorers, mountain men, miners, government officials, Mormons, and other groups in the nineteenth century. Impact of national movements, various peoples, politics, economics, and social and cultural change in the twentieth century.

365. American South. (3:3:0)
Political, economic, and cultural history of the southern states from colonial times to the present.

366. San Francisco: Time, Place, and Ethos. (3:3:0)
San Francisco as a microcosm of the American experience: art, architecture, environmentalism, politics, and ethnic diversity.

367. Slavery in the United States. (3:3:0)
Historical themes and developments of slavery in the U.S.

368. Sport, Society, and American Culture. (3:3:0)
Development of sports in American society, emphasizing ethnic and racial groups, social classes, gender, gambling, politics, and social mobility.

369. Travel and Tourism in America. (3:3:0) F
History of travel and tourism in America to the present. Themes include changing technology, consumerism, nationalism, and social identities in constructing the tourist experience.

370. Colonial America. (3:3:0)
Establishment, growth, and development of the American colonies to 1763.

371. Revolutionary America. (3:3:0)
Causes and consequences of the American Revolution, the confederation era, and the framing of the Constitution.

372. U.S. History from 1815 to 1848. (3:3:0)
Maturation of the early republic to the Civil War era including the market revolution, Jacksonian politics, sectionalism, territorial expansion, religion, and reform.

373. Civil War Era, 1848–1877. (3:3:0)
Causes of the war, major military events (leaders, campaigns, soldiers), war on the home fronts, why the South lost, Reconstruction, the legacy of the war.

374. U.S. History from 1890 to 1945. (3:3:0) Prerequisite: Hist 220, 221.
Political, economic, and social movements and ideas that trace rise of U.S. as a world power in first half of twentieth century.

376. U.S. History from 1945 to 2000. (3:3:0)
Movements and ideas that shaped society, politics, economy, and diplomacy of the United States from 1945 to 2000.

377. American Social History. (3:3:0)
Methods and issues of social history; emphasizing gender, social class, race, and ethnicity.

378. American Family History. (3:3:0)
History of American families from colonial period to the present.

379. Life and Thought in America. (3:3:0)
Movements in social and political thought; major leaders and their times from 1607 to the present.

380. Popular Culture in America. (3:3:0)
Life and culture in America; the American character and its relationship to popular cultural themes.

381. U.S. Religious History. (3:3:0)
Religious developments in America from colonial times to the present.

382. Mormonism in the American Experience. (3:3:0)
Social, economic, political, intellectual, and religious environment in which Mormonism flourished; contributions of Mormon men and women to American culture and history.

384. United States Women's History. (3:3:0)
Survey course of women's experience in American culture and society from the Puritans to the present.

385. Latinos in the United States. (3:3:0)
The place of Latin Americans within the context of U.S. history. The growth and development of the largest Latino communities from pre-colonial times to present day and how Latinos may influence future policies within the U.S.

386. Nineteenth-Century American Indian History. (3:3:0)
History of various Indian tribes, their cultures, and their relationships with European nations and the United States, including military campaigns.

387. Twentieth-Century American Indian History. (3:3:0)
Sociocultural factors that affect twentieth-century native Americans in both urban and reservation settings, including current challenges facing Indian communities.

388. Indians in Colonial America. (3:3:0)
North American Indian culture, Indian/European interactions, demographic, social, political factors among Indians prior to contact with Europeans through colonization and the American Revolutionary War.

390R. Special Topics in History. (1–3:3:0 ea.) Independent Study also.
Presented by visiting or regular faculty. Varied topics include oral history, demographics, psychohistory, Christianity in history, etc.

391. U.S. in Vietnam, 1945–1975. (3:3:0)
U.S. involvement in the wars in Vietnam from both a domestic and international perspective, focusing on the conflict independently and in context of the broader Cold War.

392. U.S. Constitutional History. (3:3:0)
Constitutional traditions and constitution making, federalism, and constitutional notions of political equity and social justice, from the colonial period to the present.

393. U.S. Foreign Relations. (3:3:0)
U.S. diplomatic history from the American Revolution to the present; major themes and critical events within both domestic and international contexts.

394. U.S. Environmental History. (3:3:0)
American people's experience living in and changing the physical environment from pre-Columbian times to present: ideas, land use, technology, urbanization, industry, water, air, etc.

395. Technology in America. (3:3:0)
Benefits and liabilities of technological complexity.

398R. Special Topics in Military History. (3:3:0 ea.)
Varied topics in world military history and war.

400. The Family and the Law in American History. (3:3:0)
The interaction of families with law and government as illustrated in original American sources; individual family histories reconstructed in the broader perspective of history.

401. U.S.–New England Family History Research. (3:3:0)
In-depth examination of sources and problem solving in New England research.

402. U.S.–Eastern States Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Eastern states research.

403. U.S.-Midwest Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Midwestern states research.

404. U.S.–Southern States Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Southern states research.

405. U.S.–Native American Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Native American research.

406R. Canadian Family History Research. (3:3:0 ea.)
In-depth examination of sources and problem solving in Canadian research.

408R. Scandinavian Family History. (3:3:0 ea.)
In-depth examination of sources and problem solving in Scandinavia.

409R. Germanic Family History Research. (3:3:0 ea.)
In-depth examination of sources and problem solving in various Germanic-speaking countries.

410R. Southern European Family History. (3:3:0 ea.)
Records, geo-historical background, paleography, and methods for reconstruction of individual families; development of demographic and family history studies in Portugal, Spain, France, and Italy.

411R. Latin American Family History Research. (3:3:0 ea.)
Records, geo-historical background, paleography, and methods for reconstruction of individual families; development of demographic and family history studies in Latin America and Spanish United States.

412. England/Wales Before 1700 Family History Research. (3:3:0)
In-depth examination of sources and problem solving in England and Wales before 1700.

413. England/Wales Since 1700 Family History Research. (3:3:0)
In-depth examination of sources and problem solving in England and Wales since 1700.

414. Scottish Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Scotland.

415. Irish Family History Research. (3:3:0)
In-depth examination of sources and problem solving in Ireland.

416. Slavic Family History Research. (3:3:0)
In-depth examination of sources and problem solving in various Slavic-speaking countries.

420. Latin Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in Latin ecclesiastical and notarial documents useful in family history research, including parish or church registers, notarial settlements of states, probate records and inventories; medieval to modern periods.

421. England Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the British Isles, sixteenth through eighteenth centuries, in family history sources.

422. Germanic Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the German kingdoms, sixteenth through eighteenth centuries, in family history sources.

423. Slavic Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the Slavic language areas of Eastern Europe, sixteenth through eighteenth centuries, in family history sources.

424. Romance Language Handwriting and Documents. (3:3:0)
Interpretation of handwriting in vernacular scripts in the Romance languages of Europe (especially Spanish, French, and Italian), sixteenth through eighteenth centuries, in family history sources.

425. Scandinavian Language Handwriting and Documents. (3:3:0)
Interpretation of old Gothic script handwriting in Scandinavian areas of Europe (including Denmark, Norway, Sweden, Finland, and Iceland), sixteenth through eighteenth centuries, in family history sources.

430R. (Hist-Clscs) Topics in Greek and Roman History. (3:3:0 ea.) Prerequisite: Cl Cv-Hist 304 and Greek 201 (Greek topics) or Cl Cv-Hist 307 and Latin 201 (Roman topics).
Topics vary (e.g., rise of the Greek city-state, Greek political thought, classical historiography, Rome and the Etruscans, imperial Rome).

431. Public History. (3:3:0)
How historical studies influence life outside the academy. Role of history discipline in museums, film, government, business, and historic preservation.

433. Writing Family Histories. (3:3:0) Independent Study also.
Selecting themes and sources, and determining issues to be dealt with.

434. Computers in Family History/History Research and Publication. (3:3:0)
Use of computer programs, CD collections, World Wide Web (www) sites and links, helpful hints in researching history or family history; including programs and techniques for publishing family histories.

480. Seminar on Professional Family History Research. (3:3:0) Independent Study also.
Practicum in professional client research, report writing, family history publishing, bookkeeping procedures, and running a family history business.

481R. Directed Research in Family History. (1–3:0:0 ea.)
Student research directed by faculty member on family history topic of mutual interest.

482. Professional Paths and Credentials in Family History. (3:3:0)
Directed research and instruction for completing the application/test for professional accreditation or certification in family history.

485. Topical Readings Seminar. (3:3:0) Prerequisite: Hist 200.
Reading, discussing, and writing about selected historical issues.

487. Philosophies of History. (3:3:0)
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians.

490. Capstone Research Seminar. (3:3:0) Prerequisite: Hist 200, 485.
Research seminar; critical, analytical, and writing skills in preparation of a senior thesis. Required of all history majors.

495R. Directed Research. (3:0:0 ea.) Prerequisite: instructor's consent.
Student research directed by faculty member on topic of mutual interest. Research assistants must do additional work for credit.

496R. Academic Internship: Family History. (1–5:0:0 ea.)
Work with Department of History on various projects, under supervision of professional.

497R. Honors Readings. (1–3:0:Arr. ea.)

498R. Directed Readings. (1–3:3:Arr. ea.) Independent Study also.

500-Level Graduate Courses (available to advanced undergraduates)

500R. Special Studies in History. (1–3:3:0 ea.)
Directed by visiting or resident faculty. Check with department secretary for current topics and instructor.

564. Sources and Problems in Western U.S. History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding the American West.

565. Sources and Problems in Latter-day Saint History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding Latter-day Saint history.

566. Sources and Problems in Utah History. (3:3:0)
Lecture, discussion, readings, and student writing on historians' sources and points of view regarding Utah history.

587. Philosophies of History. (3:3:0)
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians.

590R. Special Topics. (3:3:0 ea.)
Western American, religious, family, Asian, Latin American, and Near Eastern history.

598R. Special Readings in History. (1–2:0:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Native American Studies

Many American Indian and non-Indian students graduating from Brigham Young University in studies such as anthropology, English, education, sociology, history, business, and political

science will be brought into contact with Native Americans through their occupations.

The Native American Studies minor is designed to supplement students of various disciplines so that they may become more culturally aware of the heritage of American Indians, thus promoting better understanding and cooperation.

The minor has been designed so that students may select classes from a variety of interdepartmental courses, if desiring a general background, or a combination of classes for an in-depth study in a specific discipline.

At Brigham Young University students can major in American Studies with course work designed to emphasize American Indian history.

Make application to or obtain further information from the History Department.

Minor Native American Studies (24 hours)

Minor Requirements

1. Complete at least two of the following core courses:
   Hist 386, 387, 388.
2. Complete 15 hours from at least three disciplines:
   Anthr 317, 350, 530, 535.
   Engl 358R (Native American topics only).
   FLang 102R (Navajo or Shoshone).
   Hist 357, 360, 361, 363, 405, 495R**, 498R**.
   Hum 425R.
   Rel C 269.
   Soc 113, 323, 390R**.

   **Requires approval by NAS coordinator.

History Faculty

Professors

Brown, Kendall W. (1991) BA, Brigham Young U., 1973; MA, PhD, Duke U., 1975, 1979.

Garcia, Ignacio (1995) BA, Texas A&I U., 1976; MA, PhD, U. of Arizona, 1989, 1995.

Green, Arnold H. (1985) BA, California State U., Los Angeles, 1965; MA, Brigham Young U., 1967; PhD, U. of California, Los Angeles, 1973.

Harline, Craig E. (1992) BA, Brigham Young U., 1980; MA, PhD, Rutgers, 1984, 1986.

Pixton, Paul B. (1974) BA, MA, U. of Utah, 1965, 1967; PhD, U. of Iowa, 1972.

Thorp, Malcolm Ray (1969) BS, MA, Brigham Young U., 1964, 1967; PhD, U. of Wisconsin, Madison, 1972.

Underwood, Grant (2000) BA, MA, Brigham Young U., 1977, 1981; PhD, U. of California, Los Angeles, 1988.

Walker, Ronald W. (1980) BS, MA, Brigham Young U., 1961, 1965; MS, Stanford U., 1968; PhD, U. of Utah, 1977.

York, Neil Longley (1977) BA, MA, Brigham Young U., 1973, 1975; PhD, U. of California, Santa Barbara, 1978.

Associate Professors

Bohac, Rodney D. (1983) BA, U. of Nebraska (1974); MA, PhD, U. of Illinois, 1975, 1982.

Cannon, Brian Q. (1992) BA, Brigham Young U., 1984; MA, Utah State U., 1986; PhD, U. of Wisconsin, 1992.

Daynes, Kathryn (1994) BA, DePaul U., 1973; MA, PhD, Indiana U., 1975, 1991.

Grandstaff, Mark R. (1993) BS, Embry-Riddle Aeronautical U., 1980, MA, Brigham Young U., 1984; PhD, U. of Wisconsin, Madison, 1992.

Hamblin, William J. (1990) BA, Brigham Young U., 1978; MA, PhD, U. of Michigan, 1981, 1985.

Hartley, William G. (1980) BA, MA, Brigham Young U., 1966, 1969.

Haslam, Gerald M. (1991) BA, MA, U. of Utah, 1972, 1974; PhD, Brigham Young U., 1981.

Holmes, Blair R. (1971) BA, Brigham Young U., 1966; MA, PhD, U. of Colorado, 1968, 1972.

Kerry, Paul E. (1999) BA, Brigham Young U., 1989; MA, U. of Chicago, 1995; DPhil, Oxford, England, 1998.

Miller, Shawn W. (1997) BA, Brigham Young U., 1990; MA, PhD, Columbia U., 1992, 1996.

Richards, Mary Stovall (1983) BA, Brigham Young U., 1973; AM, PhD, U. of Chicago, 1976, 1983.

Rugh, Susan Sessions (1997) BA, Brigham Young U., 1974; MA, PhD, U. of Chicago, 1986, 1993.

Ryskamp, George R. (1993) BA, JD, Brigham Young U., 1974, 1979.

Shumway, Jeffrey M. (1999) BA, Brigham Young U.—Hawaii, 1992; MA, Brigham Young U., 1994; PhD, U. of Arizona, 1999.

Assistant Professors

Buckley, Jay H. (2001) BA, MA, Brigham Young U., 1994, 1996; PhD, U. of Nebraska, 2001.

Carter, Karen E. (2006) BA, MA, Brigham Young U., 1995, 2000; PhD, Georgetown U., 2006.

Choate, Mark I. (2001) BA, MA, MPhil, PhD, Yale U., 1995, 1996, 1998, 2002.

Cooper, Glen (2004) BA, Brigham Young U., 1988; MA, MPhil, PhD, Columbia U., 1995, 1997, 1999.

DeSchweinitz, Rebecca (2006) BA, Brigham Young U., 1992; MA, PhD, U. of Virginia, 1997, 2004.

Dursteler, Eric R. (1998) BA, MA, Brigham Young U., 1988, 1992; PhD, Brown U., 1999.

Farmer, J. Michael (2002) BA, U. of Texas, Austin, 1992; MA, MA, PhD, U. of Wisconsin, Madison, 1994, 1996, 2001.

Harreld, Donald J. (2001) BA, BA, MA, PhD, U. of Minnesota, 1983, 1993, 1996, 2000.

Harris, Amy (2006) BA, Brigham Young U., 1998; MA, American U., 2000; PhD, U. of California, Berkeley, 2006.

Hodson, Christopher (2007) BA, MA, Utah State U., 1998, 1999; PhD, Northwestern U., 2004.

Johns, Andrew (2004) BA, Brigham Young U., 1992; MA, PhD, U. of California, Santa Barbara, 1995, 2000.

Kimball, Richard I. (2002) BA, Brigham Young U., 1993; MA, PhD, Purdue U., 1995, 1999.

Mason, Matthew E. (2003) BA, U. of Utah, 1995; MA, PhD, U. of Maryland, 1997, 2002.

Pulsipher, Jenny Hale (1998) BA, MA, Brigham Young U., 1985, 1989; PhD, Brandeis U., 1999.

Rushforth, Brett (2005) BA, U. of Utah 1995; MA, Utah State U., 1998; PhD, U. of California, Davis, 2003.

Skabelund, Aaron (2006) BA, Brigham Young U., 1995; MA, Stanford U., 1997; MPhil, PhD, Columbia U., 2002, 2004.

Emeriti

Addy, George M. (1957) BA, MA, Brigham Young U., 1948, 1950; PhD, Duke U., 1957.

Alexander, Thomas G. (1964) AS, Weber Coll., 1955; BS, MS, Utah State U., 1960, 1961; PhD, U. of California, Berkeley, 1965.

Allen, James B. (1963) BS, Utah State U., 1954; MA, Brigham Young U., 1956; PhD, U. of Southern California, 1963.

Britsch, R. Lanier (1966) BA, MA, Brigham Young U., 1963, 1964; PhD, Claremont Graduate U., 1967.

Cardon, Louis B. (1960) BA, U. of Arizona, 1950; MA, PhD, U. of California, Berkeley, 1957, 1965.

Fox, Frank W. (1971) BA, MA, U. of Utah, 1966, 1969; PhD, Stanford U., 1973.

Fox, William (1966) BS, MA, EdD, Brigham Young U., 1962, 1966, 1983.

Gowans, Frederick R. (1972) BS, MS, PhD, Brigham Young U., 1960, 1963, 1972.

Hill, Marvin S. (1966) BA, MA, Brigham Young U., 1955, 1955; PhD, U. of Chicago, 1968.

Hyer, Paul V. (1957) BA, Brigham Young U., 1951; MA, PhD, U. of California, Berkeley, 1953, 1960.

Jagchid, Sechin (1972) BA, PhD, Peking U., China, 1937, 1939.

Jensen, De Lamar (1957) BA, Brigham Young U., 1952; MA, PhD, Columbia U., 1953, 1957.

Johansson, Carl-Erik (1969) BA, MS, Brigham Young U., 1967, 1973.

Montgomery, David C. (1970) BA, Brigham Young U., 1961; MA, PhD, Indiana U., Bloomington, 1966, 1971.

Pratt, David H. (1966) BA, MA, Brigham Young U., 1963, 1969; PhD, U. of Nebraska, Lincoln, 1975.
Tobler, Douglas F. (1967) BA, MA, Brigham Young U., 1961, 1962; PhD, U. of Kansas, 1967.
Warner, Ted J. (1962) BS, MS, Brigham Young U., 1955, 1958; PhD, U. of New Mexico, 1963.
Westover, V. Robert (1971) BA, MA, PhD, Arizona State U., 1965, 1968, 1979.

The following persons in other departments have also been granted academic rank by the Department of History:

Baker, Legrand (Lee Library) Assistant Professor
Embry, Jessie (Charles Redd Center) Associate Research Professor
Hall, John F., III (Humanities, Classics, and Comparative Literature) Professor
Huntsman, Eric D. (Ancient Scripture) Assistant Professor
Peek, Cecilia M. (Humanities, Classics, and Comparative Literature) Assistant Professor
Whittaker, David J. (Lee Library) Associate Professor

Charles Redd Center for Western Studies

Brian Q. Cannon, Director
366 SWKT, (801) 422-4048

Activities of the Center

Established in January 1972 under an endowment from Charles and Annaley Neagle Redd, prominent Utah stock owners and philanthropists, the Charles Redd Center for Western Studies is charged with promoting the study of all aspects of the Intermountain West (Utah, Arizona, New Mexico, Nevada, Idaho, Colorado, Wyoming, and Montana). Programs of the center include conducting research; funding faculty, student, and independent research through grants and assistantships; providing financial assistance to public programs, professional organizations, and presses; offering consultation; sponsoring lectures; and assisting school children through the Utah History Fair. Center personnel teach classes in academic departments on campus and administer the American Western Studies minor offered through the American Studies program.

Associate Professor
Cannon, Brian Q. (1992) BA, Brigham Young U., 1984; MA, Utah State U., 1986; PhD, U. of Wisconsin, 1992.

Associate Research Professor, Associate Director, Oral History Program Director
Embry, Jessie L. (1979) BA, MA, Brigham Young U., 1973, 1974.

Emeriti
Alexander, Thomas G. (1964) AS, Weber Coll., 1955; BS, MS, Utah State U., 1960, 1961; PhD, U. of California, Berkeley, 1965.
Allen, James B. (1963) BS, Utah State U., 1954; MA, Brigham Young U., 1956; PhD, U. of Southern California, 1963.

Advisory Council
Alexander, Thomas G., Emeritus History, BYU
Allen, James B., Emeritus History, BYU
Anderson, Val, Integrative Biology, BYU
Bennett, Lyn Ellen, History, Utah Valley State College
Brown, Ralph, Sociology, BYU
Butler, John E., Ithaca, New York
Cutchins, Dennis, English, BYU
Geary, Edward A., Emeritus English, BYU
George, Sarah, Utah Museum of Natural History, University of Utah
Hafen, P. Jane, English, University of Nevada, Las Vegas
Jackson, Richard H., Geography, BYU
Lambert, Becky Redd, Mapleton, Utah
Magleby, David B., Political Science, BYU
Murphy, John, L. Tom Perry Special Collections, BYU
Nichols, Jeff, History, Westminster College
Sillito, John, Stewart Library, Weber State University
Wilson, William A., Emeritus Humanities, BYU
Woodworth-Ney, Laura, History, Idaho State University

Hmong

See Center for Language Studies.

Home Economics

See Home and Family Living in School of Family Life section of this catalog.

Honors Program

102A MSRB
(801) 422-5497

Dean, Undergraduate Education: Daniel J. Fairbanks, Professor, Plant and Animal Sciences
Associate Dean—Honors/Honors Program Director: Madison U. Sowell, Professor, Italian and Comparative Literature
Assistant Dean, Undergraduate Education: Carolyn Tuitupou
Administrative Assistant: Shauna Barrick

Participation in Honors

The Honors Program provides an unusually rich and challenging experience for capable and motivated undergraduate students. Its purpose is to assist students as they establish lifelong patterns of learning and appreciation of the world's great treasures of knowledge. Honors education is not merely a more intensive general education or a more strenuous program in a major. Rather, it provides students with the advantages of an enriched education in a small-class setting with excellent professors, while utilizing all of the advantages of a large university. Students who pursue an honors education at Brigham Young University take honors courses that meet university core requirements and participate in an intensive honors thesis experience in their major.

To graduate from BYU, students must meet not only the requirements of a major department but also the university core requirements in general education and religion. Most students complete the nonmajor requirements through courses in the general university curriculum. Because all students must complete core requirements, some required classes have high enrollments, and there is little opportunity for students to interact with the professors. The Honors Program invites capable and motivated students to satisfy university core requirements through honors as alternatives to the standard general and religious education programs. Honors courses have small enrollments (usually fewer than 30 students per class) and are focused on class discussion and writing.

University Honors is a distinction awarded to all graduates of BYU who have met the honors requirements as described below. This prestigious designation is recorded on the university diploma, on the official transcript of grades, and in the graduation program. It is widely recognized as an indication of exceptional academic achievement. Although it is hoped that students will choose to complete all of the requirements for the University Honors designation, those who do not intend to do so are welcome to participate in the Honors Program to whatever extent they choose. All students are invited to consider honors as a way to achieve the quality academic experiences they seek. Students may register for honors courses at any time during their undergraduate years without necessarily intending to complete all the honors graduation requirements.

Honors education is open to all students who choose to participate. Students who intend to graduate with University Honors must complete an enrollment form that may be obtained from the Honors Advisement Center in 102A Maeser Building (MSRB).

Facilities and Opportunities Available to Honors Students

The Honors Program is housed in the historic Maeser Building on the southwest part of campus. This quiet corner is surrounded by beautiful grounds and wooded areas. The building is named after Karl G. Maeser, the first principal of Brigham Young Academy (the school that later became Brigham Young University). A bronze statue of Karl G. Maeser stands at the building's east entrance. Constructed in 1911, the Maeser Building is the oldest building on the current campus. The building was restored in 1985 with modern electrical and ventilation systems but retains its historic architecture and decoration, its marble halls richly appointed with oak and brass trim.

Facilities for honors students in the Maeser Building include the Honors Reading Room in 150 MSRB, with study tables and a small library of reference works and classics; the Honors Student Lounge in 102 MSRB, where students can meet for informal discussions; an art gallery in the lower-floor hall; the Honors Advisement Center in 102A MSRB, where students receive counseling about their honors education; and the Martha Jane Knowlton Coray Lecture Hall in 321 MSRB, where classes, lectures, and musical concerts are held.

Students who have completed an enrollment form and who are active participants in the Honors Program are eligible for reduced-rate admission to selected musical and theatrical performances, some of which include visiting performers of international renown. They also have priority registration privileges for honors courses. The Honors Program sponsors lectures, concerts, symposia, and socials. Students can also participate in intercampus events with honors students from other universities and colleges. Each week, on Thursdays at 11:00 a.m., during fall and winter semesters, the Honors Program sponsors honors lectures featuring a religious or academic presentation by a professor or member of the community. Students are also invited to participate with the Honors Student Advisory Council, a group of student representatives who assist in policy development, social activities, and academic functions of the Honors Program.

Who Should Participate in Honors?

The characteristics that best define honors students are motivation and a strong desire to obtain the most from the educational experience that BYU has to offer. Honors students seek breadth in their education by taking honors courses outside their majors. They excel in their majors by learning how to conduct research and scholarly work within their chosen fields. They usually tend to work harder and spend more time on their course work than other students, not because their courses are more difficult but because they take courses that interest them. They attend concerts, plays, films, lectures, and art and science exhibitions, and they participate in informal discussions with their professors and fellow students. Because many of their classes are small and discussion-oriented, they are personally acquainted with their professors. They become well-rounded, literate, and humane scholars whose faith in the restored gospel is strong. Their thirst for knowledge lasts a lifetime. They are not necessarily those with the highest grade-point averages or the highest standardized test scores, nor do all honors students have scholarships.

Approximately 30 percent of the BYU student body participates in honors, and students benefit thereby from an enriched education. The Honors Program invites all BYU students who seek an enhanced educational experience to take advantage of the many opportunities offered by the Honors Program.

Overview of Requirements for Graduation with University Honors

This section provides a brief overview of the requirements to graduate with University Honors. Detailed explanations of each requirement follow this section. The staff in the Honors Advisement Center, 102A MSRB, (801) 422-5497, is available to answer questions about honors requirements. To graduate with University Honors, a student must:

1. Complete an honors enrollment form.
2. Complete the honors curriculum requirement.
3. Complete the honors great works and arts engagement requirement.
4. Complete the honors advanced languages requirement.
5. Complete the honors service requirement.
6. Complete the honors thesis requirement.
7. Graduate with a cumulative grade point average of at least 3.5.
8. Submit a graduation portfolio that summarizes the student's academic experiences.

The requirements for graduation with University Honors complement both major and university core education. The honors curriculum, great works, and advanced languages requirements enhance the university core components; the honors thesis requirement enhances the major education component.

Detailed Explanations of Requirements for Graduation with University Honors

1. Honors Enrollment Form

Students who intend to graduate with University Honors should complete as early as possible in their undergraduate program an enrollment form available at the Honors Advisement Center after a brief orientation. Students who have completed the enrollment form have certain privileges, among them the opportunity to preregister for honors courses and to receive reduced-rate admission to certain musical and theatre performances and films. Consultation with the advisement center allows the Honors Program to know students' plans so advisement personnel can help them register for the correct classes and keep them informed of honors activities.

2. Honors Curriculum Requirement

The honors curriculum requirement enhances the core component of students' undergraduate education. Nearly all honors courses (Honrs) and honors sections of department courses meet the university core requirements that all BYU students must complete. Students should consult the University Core table to be sure which core requirements are met by the courses for which they choose to register.

To fulfill the honors curriculum requirements, students must complete 22 credit hours selected from honors courses and honors sections of department courses, subject to the following limitations:

a. Three of the 22 credit hours must be from one of the following writing courses: Honrs 150, Engl 150 (honors section), or Phil 150 (honors section).
b. No more than 12 credit hours from honors sections of department courses can be used to meet this requirement. Of these, no more than 4 credit hours can be from honors sections of religion courses.
c. No more than 3 credit hours of non-GE honors classes (Honrs 100, 290R, or 292R) can be used to meet this requirement.

Honors options are available for nearly all university core requirements. Honrs 499R (honors thesis) does not count as credit for the honors curriculum requirement.

3. Great Works and Arts Engagement Requirement

The honors great works and arts engagement requirement introduces students to the world's treasures of literature, music, theatre, film, art, and science and technology. It is intended to enhance not just their undergraduate education but their entire life as it encourages them to develop a lifelong pattern of experiencing the great works of humankind. Students can fulfill this requirement entirely on their own, or they may include works of literature, music, theatre, film, art, and science that they study as part of their course work. BYU provides many opportunities to fulfill this requirement within its course offerings and its rich schedule of musical, theatrical, and artistic productions. Some of the great works are part of many honors courses. The Honors Program provides reduced-rate admission for honors students to attend selected performance events. Most faculty and student recitals and most art exhibitions are open to students and the public with no admission charge.

This requirement must be met during the time students are undergraduates. They cannot reduce the requirement by counting works studied only during high school. Students will benefit most from this requirement if they spread it out over their undergraduate years. Each area requires students to study or attend twelve works, performances, or exhibitions—which is three per year in each area if spread out over a period of four years. A great works requirement packet is available in the Honors Advisement Center (102A MSRB) or electronically at http://www.honors.byu.edu. This packet includes the detailed information students will need and a checklist that they can use to ensure that they properly complete this requirement.

To fulfill this requirement during their four years as an undergraduate, students must:

a. Read twelve works of literature from the approved reading list on the honors Web site or in the great works requirement packet (or from approved substitutions to that list). Students must choose at least one work from each of the following categories of literature in the Western tradition: classical, medieval, renaissance and reformation, seventeenth and eighteenth centuries, nineteenth century, and twentieth century; and at least one work from the non-Western tradition. The remaining five works can be from any of the time periods and from Western or non-Western traditions. As students make their selections, they should choose at least one work from each of the following fields: social science, female authors, and persons of color.

   Inclusion of works not on the approved list is permitted but requires completion of a substitution letter (information available in the Honors Advisement Center) that must be preapproved by the Honors Program director or the dean.
b. Attend twelve theatrical performances, including at least one play by Shakespeare.
c. Attend twelve musical performances. The performances must include at least two symphonies, one concerto, one opera, two faculty or student recitals, one jazz performance, and one dance performance.
d. Attend twelve films from the approved list or presented through BYU's L. Tom Perry Special Collections or the International Cinema program. Films viewed as part of a university course also qualify. At least six of the films should be in a language other than English. (Foreign language films shown in International Cinema have English subtitles.)
e. Attend twelve art exhibitions (either traveling exhibitions or permanent collections) at local art museums (BYU Museum of Art, Springville Museum of Art, and Church Museum of History and Art) and/or at renowned national or international art museums. Students who have the opportunity to travel are strongly encouraged to visit museums and architectural sites to meet this requirement.
f. Engage twelve great ideas in science or technology through such means as in-class experiments, virtual lab exercises, scientific and mathematical treatises, and attendance at science fairs, exhibits, and germane lectures.
g. As part of their graduation portfolio, students submit twelve response papers that examine two works of literature, two theatrical works, two works of music, two films, two works of art, and two experiences with science or technology from the lists included in the great works requirement packet. The packet also contains detailed instructions on writing responses.

4. Honors Advanced Languages Requirement

Honors students must gain proficiency in a foreign language (at least two semesters of foreign language study, or the equivalent) and proficiency in advanced mathematics, statistics, or logic (at least one course from Honrs 250, Math 112/H, 113/H, 119, Phil 305, Psych 301, Stat 221/H, or an acceptable substitute). Fulfillment of this requirement meets and exceeds the core advanced Languages of Learning requirement in requiring both languages and math.

5. Honors Service Requirement

Students who participate in honors are multi-talented and highly motivated. The Honors Program encourages students to share their gifts with others through meaningful service. To complete this requirement students must participate in some form of service that draws upon their unique talents and abilities during their undergraduate years. The requirement is flexible in that it allows students to define the form of service they plan to use to meet it. Their contribution may be in a single project or spread out

over several projects. Examples of service projects that students have used to complete this requirement include volunteer tutoring of high school or college students; assistance in programs that benefit people who are handicapped, elderly, ill, or impoverished; service as a volunteer in museums, hospitals, parks, or other public facilities; and participation on restoration or conservation projects. This service can be part of activities sponsored by educational, religious, government, business, or charitable organizations, including BYU and the LDS Church, or students can plan and carry out service on their own. For those students who serve full-time LDS missions, the service that meets this requirement should be carried out while a student and should be in addition to any service performed as a full-time missionary. Missions often provide students with skills and opportunities that they can use to provide significant service after their full-time missions are completed.

6. Honors Thesis Requirement

The honors thesis requirement gives students the opportunity to participate in original research or creative work in the discipline of their major. Honors students typically complete the thesis requirement during their junior and senior years after they have obtained sufficient training in their major to conduct independent work in a specialized academic field. Each student consults with a departmental honors coordinator to choose a faculty advisor in the department of his or her major and, in consultation with the advisor, chooses a thesis topic.

Students should complete significant course work within the subject area of the thesis (usually at least 30 credit hours, several of which are from 300- or 400-level major courses). The thesis is intended to acquaint students firsthand and in depth with the type of scholarly work that characterizes the field they intend to pursue professionally. For these reasons, only under rare circumstances is an honors thesis topic outside the major area approved. (In most cases students who complete a thesis outside the major do so in fields cognate to their majors.)

Before students begin work on an honors thesis, they must submit a written thesis proposal and have it approved by the Honors Program office. Guidelines for writing the proposal are available in the Honors Advisement Center (102A MSRB) or electronically at http://honors.byu.edu. Students can request financial support as a part of the thesis proposal. Many honors students obtain competitive undergraduate research grants from BYU's Office of Research and Creative Activities for honors thesis work. Also, many professors and departments have research funding that can be devoted to research on an honors thesis. Personnel in the Honors Program can help students explore the various opportunities available to support their work on an honors thesis.

After completing thesis research and writing the thesis, each student must conduct a thesis defense. The defense committee consists of the thesis advisor, a faculty referee, and a representative of the Honors Program administration, who chairs the defense. After the thesis defense is completed and all final changes are incorporated into the thesis, the Honors Program will have the thesis bound and add it to the collection of honors theses housed in the Harold B. Lee Library.

7. Graduate with a Cumulative Grade Point Average (GPA) of at Least 3.5

Honors students are not necessarily those with the highest GPAs, although most perform very well in their classes. Rather than select easy courses to receive high grades, honors students tend to seek challenging courses taught by excellent professors, and they participate in a variety of activities. Nevertheless, honors students are expected to perform well academically, defined as a minimum GPA of 3.5 at the time of graduation.

8. Graduation Portfolio Summarizing the Honors Experiences

The honors portfolio is a record of a student's undergraduate experience. It is a file kept by all candidates for University Honors graduation and is submitted for review at the same time as the completed thesis. The portfolio contains samples of a student's best academic work from the undergraduate program. Although students should place their best work in the portfolio, the file is intended as a record of growth; thus early struggling attempts also have their place. It is always illuminating to students to see where they have been and how far they have come.

When submitted for examination, the portfolio should contain (but is not limited to):

a. A one- or two-page summary, semester by semester, of the major highlights and achievements of the student's undergraduate experience.
b. A one-page evaluation of the most memorable service the student contributed as an undergraduate.
c. A current transcript indicating a GPA of at least 3.5.
d. A list of three faculty members who know the student and can recommend his or her academic record.
e. A representative collection of the student's best academic work, reflecting educational progression throughout the undergraduate years.
f. A great works and arts engagement experience log.
g. Ten great works and arts engagement response papers.

Note: The general Web site for the BYU Honors Program is http://honors.byu.edu.

Honors (Honrs) Courses

Dates and times for Honors Program courses are listed in the current class schedule under Honors Program.

The Honors Program Course Guide also contains a complete list of honors courses and detailed course descriptions. It is an essential supplement to the undergraduate catalog and the class schedule. To obtain the course guide or further information about the Honors Program, contact the Honors Advisement Center: 102A MSRB, telephone (801) 422-5497, or visit the Web site at http://honors.byu.edu.

A. University Core, Beginning Fall 2004

Note: 300-level courses are upper-division versions of their 200-level counterparts. Courses marked with * simultaneously meet two core requirements.

1. Citizenship

American Heritage

240. American Government and Society. (3:3:0)

Global and Cultural Awareness

202. Civilization 2: Global and Cultural Awareness. (3:3:0)*

208R/308R. Letters: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)*

209R/309R. Arts: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)*

231R/331R. Social Science: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

232R/332R. History: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

247R/347R. Natural Science: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

261. Social Science Principles and Reasoning: Global and Cultural Awareness. (3:3:0)*

2. Skills

First-Year Writing

150. Honors University Writing. (3:3:0)

University writing and critical reading designed for those with AP English credit or those intending to graduate with University Honors.

Advanced Written and Oral Communication

300R. Advanced Writing. (3:3:0 ea.) Prerequisite: completion of First-Year Writing requirement.
Approaches to advanced writing that differ from departmental offerings.

Languages of Learning

250. Math Modeling—Toward a Personal Understanding of the World. (3:3:0)
Developing skills in arriving at quantitative models for the world as we see it. Some math skills reviewed and some new ones introduced.

3. Arts, Letters, and Sciences

Civilization

201. Civilization 1. (3:3:0)
Colloquium or seminar in the history of civilization from antiquity to ca. A.D. 1500.

202. Civilization 2. (3:3:0)
Colloquium or seminar in the history of civilization from ca. A.D. 1500 to the present.

Arts

202. Civilization 2: Arts. (3:3:0)*
Colloquium or seminar in the history of civilization from ca. A.D. 1500 to the present.

204R/304R. Fine Arts. (3–6:Arr.:Arr. ea.)

206R/306R. Humanities. (3–6:Arr.:Arr. ea.)

209R/309R. Arts: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)*

Letters

202. Civilization 2: Letters. (3:3:0)*

203R/303R. Literature. (3–6:Arr.:Arr. ea.)

205R/305R. Philosophy. (3–6:Arr.:Arr. ea.)

206R/306R. Humanities. (3–6:Arr.:Arr. ea.)

208R/308R. Letters: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)*

Scientific Principles and Reasoning

259. Physical Science Principles and Reasoning. (3:3:0)

260. Biological Science Principles and Reasoning. (3:3:0)

261. Social Science Principles and Reasoning. (3:3:0)

B. General Education Electives Before Fall 2004

Courses meeting the remaining pre-2004 GE requirements—American Heritage, Languages of Learning, Arts and Sciences Core—carry over into the new program.

Arts and Letters

203R/303R. Literature. (3–6:Arr.:Arr. ea.)

204R/304R. Fine Arts. (3–6:Arr.:Arr. ea.)

205R/305R. Philosophy. (3–6:Arr.:Arr. ea.)

206R/306R. Humanities. (3–6:Arr.:Arr. ea.)

207R/307R. Language. (3–6:Arr.:Arr. ea.)

208R/308R. Letters: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

209R/309R. Arts: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

210R/310R. Civilization and Culture. (3–6:Arr.:Arr. ea.)

211R. Colloquium in Arts and Letters. (3–6:Arr.:Arr. ea.)

Social and Behavioral Sciences

221R. Colloquium in the Social Sciences. (3–6:Arr.:Arr. ea.)

222R/322R. History. (3–6:Arr.:Arr. ea.)

223R/323R. Behavioral Science. (3–6:Arr.:Arr. ea.)

224R/324R. Political Science. (3–6:Arr.:Arr. ea.)

225R/325R. Sociology. (3–6:Arr.:Arr. ea.)

226R/326R. Anthropology. (3–6:Arr.:Arr ea.)

227R/327R. Economics. (3–6:Arr.:Arr. ea.)

228R/328R. Education. (3–6:Arr.:Arr. ea.)

229R/329R. Business. (3–6:Arr.:Arr. ea.)

230R/330R. Civilization and Culture. (3–6:Arr.:Arr. ea.)

231R/331R. Social Science: Global and Cultural Awareness (3–6:Arr.:Arr. ea.)

232R/332R. History: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

261. Social Science Principles and Reasoning. (3:3:0)

Natural Sciences

241R. Colloquium in the Sciences. (3–6:Arr.:Arr. ea.)

242R/342R. Mathematics. (3–6:Arr.:Arr. ea.)

243R/343R. Physical Science, Elective. (3–6:Arr.:Arr. ea.)

244R/344R. Biological Science, Elective. (3–6:Arr.:Arr. ea.)

245R/345R. Technology. (3–6:Arr.:Arr. ea.)

246R/346R. Statistics. (3–6:Arr.:Arr. ea.)

247R/347R. Natural Sciences: Global and Cultural Awareness. (3–6:Arr.:Arr. ea.)

C. Other Honors Courses

100. Honors Experience. (1:1:0)
Introductory seminar for incoming honors students.

290R. Great Works and Arts Engagement. (1–3:Arr.:Arr. ea.)
Seminar in great works and arts engagement; topics vary.

292R. Special Projects. (1–3:Arr.:Arr. ea.)
Projects conducted under supervision of the Honors Program.

295R. Special Topics. (1–3:Arr.:Arr. ea.)
Topics vary by section and semester.

301R. Writing Practicum. (1–3:Arr.:Arr. ea.)
Application of writing and editing skills in project-based format.

492R. Special Projects. (1–3:Arr.:Arr. ea.)
Projects conducted under supervision of the Honors Program.

499R. Honors Thesis. (1–6:0:0 ea.)

Departmental Sections of Honors Courses

Selected departments offer designated honors sections of introductory courses that meet particular university core requirements as well as honors requirements. Dates and times are listed in the current class schedule, and courses are designated by the word *honors* in the title. Approved departmental honors courses include:

A Htg 100: Honors American Heritage
Anthr 101: Honors Social/Cultural Anthropology
Anthr 110: Honors Introduction to Archaeology
ArtHC 111: Honors Introduction to Art History
Biol 100: Honors Principles of Biology
Biol 120: Honors Science of Biology
Chem 111: Honors Principles of Chemistry

Cl Cv 110: Honors Introduction to Greek and Roman Literature
Cl Cv 201: Honors Classical Tradition 1
Cl Cv 202: Honors Classical Tradition 2
Cl Cv 241: Honors Greek and Roman Mythology
CmLit 201: Honors Civilization: Literature 1
CmLit 202: Honors Civilization: Literature 2
Dance 260: Honors Introduction to Dance
Econ 110: Honors Economic Principles and Problems
Engl 150: Honors Writing and Rhetoric
Engl 201: Honors World Literature 1
Engl 202: Honors World Literature 2
Engl 311: Honors Writing About the Arts and Humanities
Engl 312: Honors Persuasive Writing
Engl 315: Honors Writing in the Social Sciences
Engl 316: Honors Technical Writing
ExSc 349: Honors Body, Mind, Spirit
Fren 202: Honors Intermediate French 2
Geog 120: Honors Geography and World Affairs
Geol 101: Honors Introduction to Geology
Germ 330: Honors Cultural History of German-Speaking Peoples
Germ 340: Honors Writing About Literature
Heb 111: Honors Hebrew and the Old Testament, Part One
Heb 112: Honors Hebrew and the Old Testament, Part Two
Hist 201: Honors History of Civilization 1
Hist 202: Honors History of Civilization 2
Hum 201: Honors Western Humanities 1
Hum 202: Honors Western Humanities 2
Hum 261: Honors American Humanities 1
Hum 262: Honors American Humanities 2
Latin 111: Honors Beginning Latin, Accelerated
Math 112: Honors Calculus 1
Math 113: Honors Calculus 2
M Com 320: Honors Writing in Organizational Settings
MFHD 160: Honors Introduction to Family Processes
MMBio 221: Honors General Microbiology
Music 101: Honors Introduction to Music
Music 201: Honors Civilization: Music 1
Music 202: Honors Civilization: Music 2
Phil 110: Honors Introduction to Philosophy
Phil 150: Honors Reasoning and Writing
Phil 201: Honors History of Philosophy 1
Phil 202: Honors History of Philosophy 2
Phil 210: Honors Science and Civilization 1
Phil 211: Honors Science and Civilization 2
Phil 300: Honors Philosophical Writing
Phil 423: Honors History and Philosophy of Science
Phy S 100: Physical Science
Phscs 127: Honors Descriptive Astronomy
Pl Sc 110: Honors American Government Politics
Pl Sc 150: Honors Comparative Government and Politics
Pl Sc 201: Honors Western Political Heritage 1
Pl Sc 202: Honors Western Political Heritage 2
Psych 111: Honors General Psychology
Soc 111: Honors Introduction to Sociology
Soc 112: Honors Social Problems
Stat 221: Honors Principles of Statistics 1

Religious Education:
Rel A 121, 122, 211, 212, 301, 302, 304, 315, 327.
Rel C 130, 234, 261, 324, 325, 333, 341, 342, 343, 344, 351, 355, 356, 431.

Students should consult the departmental listings in this catalog, the current class schedule, and the Honors Program Course Guide (http://honors.byu.edu) for further details about these courses.

Humanities College Courses (HColl)

396R. Humanities Leadership Development. (1–2:Arr.:0 ea.) Prerequisite: instructor's consent.

Discussion and practice in leadership and service in the humanities, including planning, decision making, communications, teamwork, and motivation.

480R. Humanities Research Seminar. (1–3:Arr.:0 ea.) Prerequisite: a written research proposal approved by a faculty sponsor or the seminar leader.

Students prepare to present their individual research at an appropriate conference or publish their results in an appropriate publication.

490R. Language and Literature Lecture Series. (1:1:0 ea.)

Lectures by scholars in language and literature, with supplementary reading and writing.

Humanities, Classics, and Comparative Literature

Michael J. Call, Chair
3008 JFSB, (801) 422-4448

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Humanities, Classics, and Comparative Literature are open enrollment. However, special limitations apply for teaching majors.

General Information

The Department of Humanities, Classics, and Comparative Literature strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

Humanities

BA Humanities
Emphases:
Art History
Classical Studies
Comparative Literature
English
Foreign Literature
History
Media Arts (Film)
Music
Philosophy

Minor Humanities

Classics

BA Classical Studies
Emphases:
Classical Civilization
Classics
Greek
Latin

BA Latin Teaching

Minors Classical Studies
Latin Teaching

Comparative Literature

BA Comparative Literature

Scandinavian Studies

Minor Scandinavian Studies

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Comparative Literature
MA Humanities

For more information see the BYU 2007–2008 Graduate Catalog.

Humanities

The Discipline

The term *humanities* refers to the study of human intellectual and artistic creativity and the record of human experience as seen in the arts. It is an interdisciplinary major drawing from history, fine arts, literature, intellectual history, music, foreign languages, etc. In this major the student focuses on the arts as modes of human expression and how the arts combine to give a unique view of what it has meant to be human through the ages—and how they continue to influence us today. Besides teaching the interrelatedness of the arts, the study of humanities emphasizes the relationships between the arts and other aspects of human culture and society.

The major offers students unusual latitude in developing a broad and full program in the liberal arts, as well as developing skills in reasoning, language, writing, and library use—all essential elements for later independent learning as well as for functioning well in society.

Career Opportunities

The interdisciplinary nature of the major makes it an excellent preparation for graduate work in humanistic disciplines and professional schools and also for a wide range of employment, including secondary teaching. Humanities graduates going directly into the work force commonly find professional employment in education, business, government, tourism, and civil or foreign service. Those going on to graduate school usually work toward the doctorate or attend professional programs in such disciplines as library science, law, business, public administration, and medicine.

BA Humanities (56–86 hours*)

With faculty advisor approval, students will select one of nine emphases: art history, classical studies, comparative literature, English, foreign literature, history, media arts (film), music, or philosophy. The emphasis area does not constitute a major in that particular discipline—e.g., a humanities major who emphasizes art history does not receive the equivalent training in the history of art that an art history major does. The emphasis area is a portion of the course work devoted to a specific discipline that complements the student's interdisciplinary work in the major (see requirement 7 below).

Major Requirements

1. When possible, honors sections are recommended.
2. Complete the following:
   Hum 250.
3. Complete the following historical foundation courses:
   a. Hum 201 *and* 202.
   b. Cl Cv 110 *or* 241.
   c. Hum 240 *or* 242.
   d. And two courses from the following:
      Hum 260, 261, 262.
4. Complete one course from the following:
   Phil 110, 213, 214.
5. Complete one upper-division foreign language course selected from the approved course list available from the advisement

center. Majors are strongly encouraged to take a literature course in which works are read in the foreign language. Conversation courses, ASL, and music courses do not meet this requirement. The requirement may be met with European, Asian, or Middle-Eastern languages that have a written literary tradition and that are a language of scholarship. French, German, Italian, Russian, Spanish, Chinese, and Japanese are especially recommended, as are classical Greek and Latin.

6. Complete the following:
   Hum 350 (prerequisite: Engl 311 or Phil 300; Hum 201, 202, 250; and at least three of the remaining historical foundation courses [item 3 above]).
7. Complete a core of 12 hours or more (more if music) in an area of emphasis from the following: classical studies, comparative literature, English, history, art history, foreign literature, philosophy, media arts (film), or music (n.b. philosophy or foreign literature courses taken to meet requirement 6 above may *not* count toward emphases in those disciplines). Students wishing to pursue graduate work in their emphasis area are strongly encouraged to devote their supporting course work (see requirement 9 below) as well to their emphasis. Faculty advisors must approve the student's emphasis area. Courses toward the emphasis area are to be selected from the approved course list available from the advisement center. Exceptions must be cleared by the humanities section head. At least 6 of the 12 hours must be in upper-division courses.
8. Complete two capstone courses from the following:
   Hum 420R, 425R, 430R, 440R, 460R, 490R. (Prerequisite: Hum 250, 350; all historical foundations courses.)
9. Supporting course work: an 8–9 hour block of course work that supports the student's education and career goals. The block of courses must be coherent and must be approved in writing by the student's faculty advisor. The following are possibilities:
   a. Students wishing to provide greater focus to their interdisciplinary work—especially those wishing to pursue graduate work in interdisciplinary humanities or in a particular humanistic discipline—should devote this block of course work to a particular specialty (e.g., a period or area of concentration) or further work in their emphasis area.
   b. Students wishing to combine a humanities major with preparation for *professional schools* (e.g., MBA programs) that may require specialized background or quantitative skills beyond those already received may use this block of course work to acquire and strengthen those areas (e.g., C S 142, Acc 200, etc.).
   c. Any university minor will qualify.

*Hours include courses that may fulfill university core requirements.

Minor Humanities (18 hours*)

Minor Requirements

1. Complete the following:
   Hum 201, 202, 250, 350.
2. Complete one course from the following:
   Hum 240, 242, 260, 261, 262.
3. Complete one course from the following:
   Hum 420R, 425R, 430R, 440R, 460R, 490R.
4. Complete the GE Advanced Languages requirement using the foreign language option (Please note that ASL does not meet this requirement for the humanities minor. For the rationale, see item 5 under humanities major.)

*Hours include courses that may fulfill university core requirements.

Humanities (Hum)

Undergraduate Courses

101. An Introduction to the Humanities. (3:3:0) Independent Study also.
Study of the arts emphasizing forms and relationships, the development of critical skills, and an awareness of traditional humanistic values.

201. Western Humanities 1: Antiquity to Renaissance. (3:3:0) F, W, Sp, Su Honors also.
Western civilization from Greek antiquity to Renaissance from perspective of traditional humanistic values reflected in its arts and ideas. Examines fundamental questions about human experience, formative events in history, and value of important literary and artistic texts.

202. Western Humanities 2: Renaissance to the Present. (3:3:0) F, W, Sp, Su Honors also.
Western civilization from Renaissance to present from perspective of traditional humanistic values reflected in its arts and ideas. Examines fundamental questions about human experience, formative events in history, and value of important literary and artistic texts.

240. Introduction to the Humanities of Asia. (3:3:0)
Major arts of Asian cultures in their historical, religious, and philosophical settings.

242. Introduction to the Humanities of the Islamic World. (3:3:0)
Major arts of Islamic cultures in their historical, religious, and philosophical settings.

250. Introduction to Interdisciplinary Humanities. (3:3:0)
Major literary, artistic, and musical forms and their use in the interdisciplinary study of aesthetics and cultural and intellectual history.

260. Humanities of Latin America. (3:3:0)
Achievements of Latin American culture regarding art, philosophy, literature, and music from the pre-Columbian era to the present.

261. Introduction to American Humanities 1: Colonial Era Through 1876. (3:3:0) F, W, Su Honors also.
Value systems reflected in the arts and ideas of the United States from the colonial era to 1876.

262. Introduction to American Humanities 2: 1877 to the Present. (3:3:0) F, W, Sp Honors also.
Value systems reflected in the arts and ideas of the United States from 1877 to the present.

270R. European Humanities and the Arts. (1–6:Arr.:Arr. ea.) Only offered on Study Abroad programs.

290R. Special Studies in the Humanities. (1–3:0:0 ea.)

350. Interpretation of Literature and the Arts. (3:3:0) Prerequisite: Engl 311 or Phil 300; Hum 201, 202, 250; at least three of the remaining historical foundation courses (item 3 under major requirements).
Understanding and writing about literature and at least one of the other arts; critical theory. Should be taken junior year.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: 12 hours of historical foundation courses in humanities; humanities major or minor; Hum 350.
Combined study-work experience related to the humanities major (museums, government agencies, publishing firms, etc.).

420R. Studies in Periods and Movements. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Interdisciplinary study of literature, philosophy, and the arts of a particular period or movement. Problems of periodization. Topics vary.

425R. Area Studies in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Interdisciplinary study of literature, philosophy, and the arts of a particular geographical area. Topics include American, Latin American, and Asian humanities. Topics vary.

430R. Genres and Forms in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Interdisciplinary study of genres and forms. Topics include epic, tragedy, narrative, historiography, film, relationship of text and music. Topics vary.

440R. Themes in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Interdisciplinary study of themes. Topics include Eden, Arthur, Don Juan, Faust, Ulysses, Troy. Topics vary.

460R. Critical Theory and Methodology. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Theoretical and practical criticism; problems in critical theory. Topics include aesthetics, interrelations of the arts, models of cultural history, cultural theory, and aspects of contemporary theory. Topics vary.

490R. Seminar in the Humanities. (3:3:0 ea.) Prerequisite: Hum 350 or concurrent enrollment.
Interdisciplinary study of problems and major figures in the humanities. Topics vary.

495R. Directed Readings. (1–3:0:0 ea.) Prerequisite: contract and instructor's consent.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 500- and 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Classics

The Discipline

Classical Studies examine ancient Greek and Roman cultures—their languages, literature, history, religion, art, and philosophy.

The major offers essential knowledge of philology, ancient history, archaeology, biblical studies, and the literary tradition of Western Europe, as well as traditional grounding in the Classics. Students acquire important foreign-language study skills that include careful reading, thoughtful writing, and persuasive speaking. Latin is the mother language not only of Italian, French, and Spanish, but in a real sense of English as well. Its study will especially enhance one's understanding of English vocabulary, grammar, and rhetorical structure.

Greek and Roman History. Classics has the responsibility for staffing and administering offerings in Greek and Roman history. Courses in these fields are offered under Classical Civilization, Classics, Greek, and Latin. Some of these courses are cross-listed with history, and several may count toward a history major. See the History section of this catalog for details.

Classical Civilization. Classical Civilization courses presuppose no knowledge of the Greek or Latin languages and are open to all students. They are especially recommended for those who want to understand the ancient traditions underlying modern culture.

Career Opportunities

Majors in Classical Studies find employment in a variety of fields, including business, education, library science, tourism, and civil and foreign service. They are also excellent candidates for graduate work in other humanities-related disciplines and professional schools (law, business, and medicine).

BA Classical Studies: Classical Civilization Emphasis (37–45 hours*)

Emphasizes Classical Civilization, with work in either Greek or Latin language.

Major Requirements

1. Complete one course from the following:
   Cl Cv 110, 201.
2. Complete the following:
   Cl Cv 241, 304, 307.
3. Complete one course from the following:
   Cl Cv 245, 246.
4. Complete one of the following options:
   a. Greek 101, 102, 201, 301, 302.
   b. Latin 101 and 102 (or 111); 201, 301, 302.

   Note: Greek 101, 102 and Latin 101, 102, 111 may be waived with equivalent language experience.
5. Complete 6 hours from the following in the same language as above:
   Greek 411R, 430, 431, 433, 434, 435, 436, 437, 490R.
   Latin 411R, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.

   Note: Greek 411R and Latin 411R may be taken only once.
6. Complete two courses from the following:
   Cl Cv 261, 310, 340R, 355.
   Clscs 420, 430R, 490R.

*Hours include courses that may fulfill university core requirements.

BA Classical Studies: Classics Emphasis (47–63 hours*)

Emphasizes Greek and Latin literature and language, with some work in Classical Civilization.

Major Requirements

1. Complete one course from the following:
   Cl Cv 110, 201, 241.
2. Complete the following:
   Cl Cv 304, 307.
   Greek 101, 102, 201, 301, 302.
   Latin 101 and 102 (or 111); 201, 301, 302.

   Note: Greek 101, 102 and Latin 101, 102, 111 may be waived with equivalent language experience.
3. Complete one course from the following:
   Cl Cv 245, 246, 304, 307.
4. Complete one course from the following:
   Greek 401.
   Latin 401.
5. Complete four additional courses (at least one Greek and one Latin) from the following:
   Any 400-level course in Greek or Latin.
   Clscs 420, 430R, 490R.

   Note: Greek 411R and Latin 411R may be taken only once.

*Hours include courses that may fulfill university core requirements.

BA Classical Studies: Greek Emphasis (38–46 hours*)

Emphasizes Greek language and literature, with some work in Greek civilization.

Major Requirements

1. Complete one course from the following:
   Cl Cv 110, 201, 241.
2. Complete the following:
   Cl Cv 245, 304.
   Greek 101, 102, 201, 301, 302, 401.

   Note: Greek 101, 102 may be waived with equivalent language experience.
3. Complete 15 hours from the following:
   Clscs 420, 430R, 490R.
   Greek 311, 411R, 430, 431, 433, 434, 435, 436, 437, 490R.

   Note: Greek 411R may be taken only once.

*Hours include courses that may fulfill university core requirements.

BA Classical Studies: Latin Emphasis (37–45 hours*)

Emphasizes Latin language and literature, with some work in Roman civilization.

Major Requirements

1. Complete one course from the following:
   Cl Cv 110, 201, 241.
2. Complete the following:
   Cl Cv 246, 307.
   Latin 101 and 102 (or 111); 201, 301, 302, 401.

   Note: Latin 101, 102, 111 may be waived with equivalent language experience.
3. Complete 15 hours from the following:
   Clscs 420, 430R, 490R.
   Latin 411R, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.

   Note: Latin 411R may be taken only once.

*Hours include courses that may fulfill university core requirements.

BA Latin Teaching (78–91 hours*, including licensure hours)

Major Requirements

1. An approved teaching minor is required (approximately 16–21 hours).
2. Complete the following:
   Cl Cv 246, 307.
   Latin 101 and 102 (or 111); 201, 301, 302, 377, 378, 401.

   Note: Latin 101, 102, 111 may be waived with equivalent language experience.

   Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Latin 377.
3. Complete one course from the following;
   Cl Cv 110, 201, 241.
4. Complete 12 hours from the following:
   Clscs 420R, 430R, 490R.
   Latin 411R, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.

   Note: Latin 411R may be taken only once.
5. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 379.
   b. Complete 12 hours from one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor Classical Studies (Classics option)

(25–33 hours)

Minor Requirements

1. Complete 19 hours of course work in Latin or Greek beyond the 100-level.
2. Complete 6 hours of course work in Latin, Greek, Classical Civilization, or Classics.

Note: Greek 411R and Latin 411R may be taken only once.

Minor Classical Studies (Greek option) (22–30 hours)

Minor Requirements

1. Complete 16 hours of course work in Greek beyond Greek 102.
2. Complete 6 hours of course work in Greek, Classical Civilization, or Classics.

Note: Greek 411R may be taken only once.

Minor Classical Studies (Latin option) (22–30 hours)

Minor Requirements

1. Complete 16 hours of course work in Latin beyond Latin 102 or 111.
2. Complete 6 hours of course work in Latin, Classical Civilization, or Classics.

Note: Latin 411R may be taken only once.

Minor Latin Teaching (23–31 hours*)

Minor Requirements

1. Complete the following:
   Latin 101 and 102 (or 111); 201, 301, 302, 377, 378, 401.

   Note: Latin 101, 102, 111 may be waived with equivalent language experience.
2. Complete 6 hours from the following:
   Latin 411R, 430, 431, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.

   Note: One course from Cl Cv 246, 307, 340R, 362, or Clscs 430R may be substituted.

   Note: Latin 411R may be taken only once.

*Hours include courses that may fulfill university core requirements.

Classical Civilization (Cl Cv)

Undergraduate Courses

110. Introduction to Greek and Roman Literature. (3:3:0) Honors also.
Homer's *Iliad*, Sophocles' *Oedipus the King*, Vergil's *Aeneid*, and other important works of the Greeks and Romans. All readings in English.

201. The Classical Tradition 1: Antiquity to the Renaissance. (3:3:0) Honors also.
Civilization from Greek and Roman antiquity to the Italian Renaissance, emphasizing Greco-Roman culture—its institutions, literature, arts, and ideas.

202. The Classical Tradition 2: Reformation to Modern. (3:3:0) Honors also.
Civilization from the Reformation to the twentieth century, emphasizing the heritage of Greco-Roman culture—its institutions, literature, arts, and ideas.

241. Greek and Roman Mythology. (3:3:0) Honors also.
Greek and Roman gods, heroes, and myths, emphasizing literature but also giving attention to representations in the visual arts.

245. Golden Age of Greece. (3:3:0)
History of Civilization, culture, and daily life of Greece as indicated through its literature, art, history, and archaeology. All readings in English.

246. Golden Age of Rome. (3:3:0)
History of Civilization, culture, and daily life of Rome as indicated through its literature, art, history, and archaeology. All readings in English.

261. Greek and Roman Civilization and Literature in Film. (3:3:0)
Literature and civilization of ancient Greece and Rome as depicted in modern film with attendant problems of accuracy and historicity.

304. (Cl Cv-Hist) Greek History. (3:3:0)
Political, economic, social, and intellectual history of Greece from Mycenaean times to the Hellenistic period.

307. (Cl Cv-Hist) Roman History. (3:3:0)
Political, economic, social, and intellectual history of Rome from the foundation of the city to Constantine.

310. Classical Archaeology. (3:3:0)
Major excavations and antiquities of the Mediterranean region illustrating Greco-Roman history.

340R. Topics in Classical Literature and Civilization. (3:3:0 ea.)
Classical literary genres; rhetorical, philosophical, and historical writings; relationships of art and literature; or the classical tradition in the Middle Ages and Renaissance. Topics vary.

355. (Cl Cv-Engl) Greek and Roman Classics and the English Tradition. (3:3:0)
Major works by such authors as Homer, the Greek and Roman tragedians, Thucydides, Vergil, and Petronius in English translation, emphasizing their influence on English and American literature.

363. Judaism and Christianity in the Classical Near East. (3:3:0) W odd yr.
Historical and cultural contexts of early Judaism and Christianity; analysis of major Jewish and Christian texts produced in classical Near East; methodological emphasis.

399R. Academic Internship in Classics. (1–9:0:0 ea.) On dem. Prerequisite: 12 hours of classics course work (Latin, Greek, classical civilization, classics) at the 300-level and above; classical studies major status.
Combined study-work experience related to classical studies majors (museums, libraries, international universities and centers, publishers, etc.).

Classical Greek (Greek)

Undergraduate Courses

101. First-Year Greek (First Semester). (4:4:0)

102. First-Year Greek (Second Semester). (4:4:0)

201. Intermediate Greek. (4:4:0) Prerequisite: Greek 102.
Readings from Xenophon with review and continuation of grammar.

301. Classical Greek Poetry: Homer's *Iliad*. (3:3:0) Prerequisite: Greek 201.

302. Classical Greek Prose. (3:3:3) Prerequisite: Greek 201.

311. New Testament in Greek: Gospels. (3:3:0) Prerequisite: Greek 201.

401. Greek Prose Composition. (3:3:0) F odd yr. Prerequisite: Greek 302.
Exercises in composing Greek prose.

411R. Greek New Testament and Early Christian Greek Texts. (3:3:0 ea.) F, W alt sem. Prerequisite: Greek 302, 311.
Topics include Greek New Testament, the transmission and translation of New Testament manuscripts, and selections from other early Christian Greek writings.

430. Herodotus. (3:3:0) Prerequisite: Greek 302.

431. Homer's *Odyssey*. (3:3:0) Prerequisite: Greek 301.

433. Thucydides. (3:3:0) Prerequisite: Greek 302.

434. Sophocles and Euripides. (3:3:0) Prerequisite: Greek 301.

435. Greek Lyric Poetry. (3:3:0) Prerequisite: Greek 301.

436. Plato. (3:3:0) Prerequisite: Greek 302.
Reading and analysis of Greek text of selected dialogues by Plato (e.g., *The Republic, Meno, Protagoras*).

437. Attic Orators. (3:3:0) Prerequisite: Greek 302.

490R. Topics in Greek Literature. (1–3:3:0 ea.)
Topics vary.

Classical Latin (Latin)

Undergraduate Courses

101. First-Year Latin (First Semester). (4:4:0)

102. First-Year Latin (Second Semester). (4:4:0) Prerequisite: Latin 101 or two years of high school Latin.

111. Beginning Latin Accelerated. (5:5:0) Honors also.
Equivalent of combined Latin 101, 102. Prepares students for Latin 201.

121. Latin for Genealogists. (3:3:0) Independent Study also.

123. Premedical Latin and Greek. (2:2:0)
For premedical and predental students and students in the physical and natural sciences (usually taught in the evening).

201. Intermediate Latin. (4:4:0) Prerequisite: Latin 102, 111, or three years of high school Latin.
Readings from Caesar, with a review and continuation of grammar.

301. Classical Latin Poetry. (3:3:0) Prerequisite: Latin 201.
Selections from Vergil's *Aeneid* and Ovid's *Metamorphoses*.

302. Classical Latin Prose. (3:3:0) Prerequisite: Latin 201.
Readings in Cicero's Catilinarian orations and Sallust's *Catiline*.

377. Secondary Teaching Procedures. (3:3:1) Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance; Latin 321 or equivalent.
Skills mastery, hearing, speaking, reading, writing, and identification of teacher-pupil activities required for conceptual learning. Lectures, demonstrations, and application of linguistic techniques to practical classroom requirements.

378. Practicum in Latin Teaching. (1:0:3) Prerequisite: fingerprinting and FBI clearance; Latin 377 or concurrent enrollment.
Applying methods learned in Latin 377 in the classroom.

401. Latin Prose Composition. (3:3:0) W alt yr. Prerequisite: Latin 302 or concurrent enrollment.

411R. Latin Vulgate and Early Christian Latin Texts. (3:3:0 ea.) F even yr. Prerequisite: Latin 302.
Topics include Latin Vulgate and selections from other early Christian Latin texts.

430. Livy. (3:3:0) Prerequisite: Latin 302.
Selections from Livy's *Ab Urbe Condita.*

431. Vergil. (3:3:0) Prerequisite: Latin 301.

432. Ovid. (3:3:0) Prerequisite: Latin 301.

433. Cicero. (3:3:0) Prerequisite: Latin 302.
Selections from the works of Cicero.

434. Plautus and Terence. (3:3:0) Prerequisite: Latin 301.

435. Catullus. (3:3:0) Prerequisite: Latin 301.

436. Tragedy and Epic of the Early Empire. (3:3:0) Prerequisite: Latin 301.
Selections from Seneca, Lucan, and the Flavian epic poets.

437. The Latin Epistle. (3:3:0) Prerequisite: Latin 302.
Letters of Cicero, Seneca, Pliny, and the later tradition.

438. Horace. (3:3:0) Prerequisite: Latin 301.

439. Tacitus. (3:3:0) Prerequisite: Latin 302.

440. Roman Satire. (3:3:0) Prerequisite: Latin 301.
Selections from Horace, Petronius, and Juvenal.

441. Medieval Latin. (3:3:0) Prerequisite: Latin 301, 302.
Study of particular periods (e.g., Carolingian renaissance, twelfth-century renaissance) or genres (e.g., historiography, epic, autobiography), or survey of medieval Latin.

490R. Topics in Latin Literature. (1–3:3:0 ea.)
Topics vary.

Classics (Clscs)

Undergraduate Courses

420. Ancient Literary Criticism. (3:3:0) Prerequisite: Greek 302 or Latin 302.
Survey emphasizing both chief works of the tradition and their practical application to reading of Greek and Latin authors.

430R. (Clscs-Hist) Topics in Greek and Roman History. (3:3:0 ea.) Prerequisite: Cl Cv 304–Hist 247 and Greek 201 (Greek topics) or Cl Cv 307–Hist 248 and Latin 201 (Roman topics).
Topics vary (e.g., rise of the Greek city-state, Greek political thought, classical historiography, Rome and the Etruscans, imperial Rome).

490R. Seminar in Classics. (3:3:0 ea.) Prerequisite: Latin or Greek at 300-level as topic demands.
Combined topics in Greek and Latin (e.g., comparative epic poetry, classical tradition of criticism, Euripides and Seneca). Topics vary.

Comparative Literature

The Discipline

Comparative Literature is the study of literature in its totality. The Comparative Literature major not only acquaints students with literary study beyond the confines of any particular national tradition but also with the relationship between literature and other areas of knowledge. Combining the synthesizing skills and knowledge related to individual national literatures, the comparative literature major utilizes a wide range of linguistic and philosophical knowledge unique to an undergraduate program. Pursued as a major, the field offers students unusual latitude in developing a broad and full program in the liberal arts, as well as developing competence in reasoning, language, writing, and research—essential for later independent learning.

Career Opportunities

Comparative Literature majors are well prepared for graduate programs in languages and literature and for employment in the foreign service, library science, business, education, and tourism. In addition, comparative literature is an outstanding preprofessional major for those interested in law, public administration, management, and medicine.

BA Comparative Literature (37–57 hours*)

Major Requirements

1. Acquire a thorough knowledge of two language traditions relevant to individual program of study (one of these may be English for students who emphasize the Anglo-American literary tradition) (approximately 16–32 hours). Competence will normally be demonstrated in course work, but an examination may be required. If planning advanced work in comparative literature, students should gain reading knowledge of both an additional modern language and a classical language.
2. Complete a reading list (determined in consultation with a faculty advisor) and submit a writing portfolio. During the final semester enroll in CmLit 497 to complete a written examination on the reading list and to have the portfolio reviewed.
   CmLit 201 and 202 are strongly recommended, in part because the reading list core consists of texts treated in these courses. Students who do not complete a literature-based civilization sequence are at a disadvantage in working systematically through the list.
3. Course configuration must be approved by department advisor.
4. Complete the following:
   CmLit 310, 342, 497.
   Note: CmLit 310 and reading knowledge of at least one foreign language are prerequisite to all upper-division comparative literature courses. In addition, completion of 342 and three comparative literature 400-level seminars is prerequisite to 497.
5. Complete five courses from the following:
   CmLit 420R, 430R, 440R, 450R, 460R.
6. Complete one of the following options:
   Either complete a literature course in Greek or Latin
   Or complete one course from the following:
   Cl Cv 110, 241, 355.
7. The following courses deal with texts in the original language. These courses must be in addition to previous requirements. Although English courses may be taken, courses must be taken in at least one other language as well. Complete 12 hours from the following:
   Arab 531R.
   Chin 441, 442, 443, 444, 490R.
   Dansh 340.
   Dutch 340.
   Engl 333, 336, 337R, 341, 343, 355, 358R, 359, 361, 362, 363, 364, 365, 366, 371, 372, 373, 374, 375, 376, 380, 381, 382, 383, 384R, 385, 451, 452.
   Finn 340.
   Fren 452R, 453R, 454R, 455R, 456R, 495R.
   Germ 440R, 441R, 442R, 443R.
   Greek 411R, 430, 431, 433, 434, 435, 436, 437.
   Heb 431, 441.
   Iclnd 429.

Ital 441, 442, 443, 444, 460, 490R, 495R.
Japan 441, 444, 490R.
Korea 340, 443, 490R.
Latin 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 490R.
Norwe 340.
Phil 414R.
Port 441, 442, 449R, 451, 452, 453, 459R, 461R, 462R.
Russ 441, 442, 490R, 492R.
Span 438, 439R, 440, 441, 443R, 444, 446R, 448R, 449R, 450R, 451, 454R, 455R, 456R, 458R, 459R, 461.
Swed 340.

*Hours include courses that may fulfill university core requirements.

Comparative Literature (CmLit)

Undergraduate Courses

201. Civilization: Literature 1. (3:3:0) Honors also.
Major world civilizations from antiquity to early Italian Renaissance, emphasizing socioeconomic, political, intellectual, and aesthetic developments, with primary focus on literary texts.

202. Civilization: Literature 2. (3:3:0) Honors also.
Major world civilizations from Europe's High Renaissance to modern times, emphasizing socioeconomic, political, intellectual, and aesthetic developments, with primary focus on literary texts.

310. Introduction to Literary Analysis and Comparative Literature. (3:3:0) Prerequisite: reading knowledge of at least one foreign language.
Methods of literary analysis, emphasizing basic issues of comparative literature and prosody and other problems related to foreign language texts.

342. Asian Literary Traditions. (3:3:0)
Comparative analysis of Asian literary works spanning several traditions.

420R. Studies in Periods and Movements. (3:3:0 ea.) Prerequisite: CmLit 310 or Hum 350 or concurrent enrollment.
Topics vary.

430R. Studies in Literary Genres. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Various genres (e.g., novel, epic, tragedy) and problems of genre. Topics vary.

440R. Studies in Themes and Types. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Major literary themes (e.g., Faust, Don Juan, Ulysses, Arthur), types, motifs, and problems of literary typology. Topics vary.

450R. Studies in Literary Relations. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Interrelations of national literatures and figures and of literature with other areas of knowledge (art, history, law, psychology, music, etc.). Topics vary.

460R. Studies in Literary Theory. (3:3:0 ea.) Prerequisite: CmLit 310 or concurrent enrollment.
Topics vary.

495R. Directed Readings. (1–3:0:0 ea.)

497. Reading List Examination. (1:1:0) Prerequisite: CmLit 310, 342, and three 400-level seminars.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.)

Graduate Courses

For 500- and 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Scandinavian Studies

Minor Scandinavian Studies (12–28 hours*)

Minor Requirements

1. Complete the prerequisite courses for one of the languages listed below or have equivalent experience.
2. Complete one course from the following:
   Dansh 340.
   Finn 340.
   Iclnd 429.
   Norwe 340.
   Swed 340.
3. Complete the following:
   Scand 430.
4. Complete 6 hours from the following:
   Scand 344R, 377, 429 (may not be taken by students who have had Iclnd 429), 490R, 491R.
   Hist 332.

   A literature course in a language different from that taken in item 1 above:
   Dansh 340 (may not be taken by students who have had Norwe 340 or Swed 340).
   Finn 340.
   Iclnd 429 (may not be taken by students who have had Scand 429).
   Norwe 340 (may not be taken by students who have had Dansh 340 or Swed 340).
   Swed 340 (may not be taken by students who have had Dansh 340 or Norwe 340).

   Note: Scandinavian language courses are listed in the Center for Language Studies section of the catalog.

*Hours include courses that may fulfill university core requirements.

Scandinavian Studies (Scand)

Undergraduate Courses

344R. Topics in Scandinavian Studies. (3:3:0 ea.)
Topic varies. Typical topics might be folklore, culture, music, film, emigration, art and design, political and economic problems, literature in translation, etc.

377. Methods in Teaching Nordic Languages. (3:3:2) F
Prerequisite: either an assignment teaching a Nordic language class or instructor's consent.
Prior or concurrent enrollment in this course required for student instructors of Nordic languages. Focuses on teaching skills specific to foreign language instruction in beginning and intermediate language courses.

429. Old Norse. (3:3:0) Recommended: knowledge of a modern Scandinavian language.
Returned missionaries from Iceland or those with equivalent experience should enroll in Iclnd 429. Grammar and exercises. Readings in Old Norse literature.

430. Cultural History of Scandinavia. (3:3:0)
Scandinavian culture from the Vikings to the present. Works may be read in English translation.

490R. Seminar in Scandinavian Studies. (1–3:Arr.:Arr. ea.)
Prerequisite: instructor's consent.
Topics vary.

491R. Directed Readings in Scandinavian. (1–3:Arr.:Arr. ea.)
Prerequisite: written plan of study approved by both instructor and program coordinator.
Directed individual study. Register by add card only.

Danish Courses (Dansh)

Undergraduate Courses

101, 102. First-Year Danish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Danish. (4:5:1) Prerequisite: Dansh 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Danish. (4:5:1) F, W Prerequisite: Dansh 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dansh 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Dansh 211R or equivalent experience.
Advanced conversational skills.

340. Danish Literature. (3:3:0) Prerequisite: Dansh 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Danish language experience. Required course for obtaining language credit by examination (Dansh 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Danish literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Danish.

Finnish Courses (Finn)

Undergraduate Courses

101, 102. First-Year Finnish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Finnish. (4:5:1) Prerequisite: Finn 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Finnish. (4:5:1) F, W Prerequisite: Finn 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Finn 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Finn 211R or equivalent experience.
Advanced conversational skills.

340. Finnish Literature. (3:3:0) Prerequisite: Finn 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Finnish language experience. Required course for obtaining language credit by examination (Finn 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Finnish literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Finnish.

Icelandic Courses (Iclnd)

Undergraduate Courses

101, 102. First-Year Icelandic. (4:5:1 ea.)
Basic language skills.

201. Second-Year Icelandic. (4:5:1) Prerequisite: Iclnd 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing writing.

202. Second-Year Icelandic. (4:5:1) Prerequisite: Iclnd 201.
Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Iclnd 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Iclnd 211R or equivalent experience.
Advanced conversational skills.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Icelandic.

429. Old Icelandic Language and Literature. (3:3:0) Prerequisite: Iclnd 201 or equivalent experience.
Entry course for returned missionaries or others with equivalent Icelandic language experience. Required course for obtaining language credit by examination (Iclnd 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings and exercises in Old Icelandic; introduction to Old Icelandic literature and its influence on later Icelandic culture.

Norwegian Courses (Norwe)

Undergraduate Courses

101, 102. First-Year Norwegian. (4:5:1 ea.)
Basic language skills.

201. Second-Year Norwegian. (4:5:1) Prerequisite: Norwe 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Norwegian. (4:5:1) F, W Prerequisite: Norwe 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Norwe 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Norwe 211R or equivalent experience.
Advanced conversational skills.

340. Norwegian Literature. (3:3:0) Prerequisite: Norwe 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Norwegian language experience. Culminating course for GE Foreign Language requirement. Required course for obtaining language credit by examination (Norwe 101, 102, 201, 211R). Readings in Norwegian literature; introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Norwegian.

Swedish Courses (Swed)

Undergraduate Courses

101, 102. First-Year Swedish. (4:5:1 ea.)
Basic language skills.

201. Second-Year Swedish. (4:5:1) Prerequisite: Swed 102 or equivalent experience.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

202. Second Year Swedish. (4:5:1) F, W Prerequisite: Swed 201.
Culminating course for GE Foreign Language requirement (except for returned missionaries or those with equivalent experience). Emphasis on literature and culture with continued writing, grammar, listening, and speaking.

211R. Second-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Swed 102 or equivalent experience.
Intermediate listening comprehension and speaking skills.

311R. Third-Year Conversation. (1–5:Arr.:Arr. ea.) Prerequisite: Swed 211R or equivalent experience.
Advanced conversational skills.

340. Swedish Literature. (3:3:0) Prerequisite: Swed 202 or equivalent experience.
Entry course for returned missionaries or others with equivalent Swedish language experience. Required course for obtaining language credit by examination (Swed 101, 102, 201, 211R). Culminating course for GE Foreign Language requirement. Readings in Swedish literature: introduction to basic literary concepts.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: department's consent.
On-the-job experience in Swedish.

Humanities, Classics, and Comparative Literature Faculty

Professors
Call, Michael J. (1983) BA, MA, Brigham Young U., 1971, 1976; PhD, Stanford U., 1982.
Hall, John F. (1978) BA, Brigham Young U., 1975; MA, PhD, U. of Pennsylvania, 1978, 1984.
Handley, George B. (1998) BA, Stanford U., 1989; MA, PhD, U. of California, Berkeley, 1991, 1995.
Lounsbury, Richard C. (1982) BA, U. of Calgary, Canada, 1970; MA, PhD, U. of Texas, Austin, 1972, 1979.
Peer, Larry H. (1975) BA, MA, Brigham Young U., 1963, 1965; PhD, U. of Maryland, College Park, 1969.
Sondrup, Steven P. (1973) BA, U. of Utah, 1968; MA, PhD, Harvard U., 1969, 1974.
Tate, George S. (1974) BA, MA, Brigham Young U., 1969, 1970; PhD, Cornell U., 1974.

Associate Professors
Benfell, V. Stanley (1993) BA, Brigham Young U., 1987; MA, PhD, New York U., 1990, 1994.
Christenson, Allen J. (1998) BS, Brigham Young U., 1980; DDS, U. of California, Los Angeles, 1984; MA, PhD, U. of Texas, Austin, 1996, 1998.
Macfarlane, Roger T. (1989) BA, Brigham Young U., 1985; MA, PhD, U. of Michigan, 1987, 1991.
Parry, Joseph D. (1993) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Utah, 1994.
Soper, Kerry D. (1999) BFA, Utah State U., 1992; MA, PhD, Emory U., 1994, 1998.
Sowell, Debra H. (2002) BA, Brigham Young U., 1975; MA, Tufts U., 1980; PhD, New York U., 1990.

Assistant Professors
Bay, Stephen M. (2006) BA, Brigham Young U., 1993; AB, U. of Utah, 1997; AM, PhD, U. of Illinois, 2000, 2004.
Burns, Mark K. (2002) BA, MA, MA, Brigham Young U., 1987, 1991, 1995; PhD, Harvard U., 2003.
Call, Michael Josiah (2006) BA, Brigham Young U., 2000; MA, MPhil, PhD, Yale U., 2002, 2005, 2006.
Duckwitz, Norbert H. O. (1969) BA, MA, Brigham Young U., 1969, 1972; AM, Harvard U., 1974; PhD, U. of Colorado, 1987.
Kramer, Nathaniel T. (2004) BA, MA, Brigham Young U., 1996, 1998; PhD, U. of California, Los Angeles, 2004.
Oscarson, Christopher P. (2005) BA, MA, Brigham Young U., 1996, 2000; PhD, U of California, Berkeley, 2006.
Peek, Cecilia M. (1996) BA, Brigham Young U., 1987; MA, PhD, U. of California, Berkeley, 1991, 2000.
Sederholm, Carl H. (2002) BA, U. of California, Los Angeles, 1996; PhD, U. of Utah, 2002.
Stanford, Charlotte A. (2003) BA, Brigham Young U., 1993; MA, U. of Connecticut, 1996; PhD, Pennsylvania State U., 2003.
Tueller, Michael A. (2003) AB, PhD, Harvard U., 1992, 2003.

Instructors
Ancell, Matthew G. (2006) BA, Brigham Young U., 1998; MA, U. of California, Irvine, 2001.

Assistant Lecturers
Andersen, David L. (1985) BA, MA, Brigham Young U., 1977, 1979.
Fisher, Deborah S. (1989) BA, MA, Brigham Young U., 1975, 1985.
Macfarlane, Karen C. (1991) BA, MA, Brigham Young U., 1984, 1990.

Emeriti
Bassett, Arthur R. (1972) BS, MRL, Brigham Young U., 1960, 1966; PhD, Syracuse U., 1975.
Britsch, Todd A. (1966) BA, Brigham Young U., 1962; MA, PhD, Florida State U., 1965, 1966.
Butler, Terrell M. (1979) BA, Brigham Young U., 1969; MA, PhD, Cornell U., 1972, 1979.
Davis, Norma (1978) BA, MA, Brigham Young U., 1972, 1975.
Green, Jon D. (1970) BA, MA, Brigham Young U., 1966, 1968; PhD, Syracuse U., 1972.
Marshall, Donald R. (1971) BA, MA, Brigham Young U., 1960, 1965; PhD, U. of Connecticut, 1971.
Phillips, R. Douglas (1966) BA, Brigham Young U., 1962; MA, PhD, U. of Illinois, 1964, 1972.
Shumway, Larry V. (1975) BA, Brigham Young U., 1960; MA, Seton Hall U., 1960; PhD, U. of Washington, 1974.

The following faculty members from other departments are also formally affiliated with the Comparative Literature program:
Cutler, Ed (English)
Hegstrom, Valerie (Spanish and Portuguese)
Lee, Daryl (French and Italian)
Miller, J. Scott (Asian and Near Eastern Languages)
Pratt, Dale J. (Spanish and Portuguese)
Sowell, Madison V. (French and Italian)

Hungarian

See Germanic and Slavic Languages.

Icelandic

See Department of Humanities, Classics, and Comparative Literature.

Ilangot

See Center for Language Studies.

Ilocano

See Center for Language Studies.

Indonesian

See Center for Language Studies.

Information Systems

Marshall Romney, Chair
510A TNRB, (801) 422-5704

Marriott School of Management Advisement Center
460 TNRB, (801) 422-4285

Admission to Degree Program

The degree program in the department carries special enrollment limitations. Please see the Marriott School of Management Advisement Center for specific details.

The Discipline

Computer-based information systems have become a critical part of the products, services, operations, and management of all organizations. The effective and efficient use of information and communications technologies is an important element in achieving competitive advantage for business organizations as well as achieving excellence in service for government and non-profit organizations. The twenty-first century has seen the rapid growth of the Internet, eCommerce, and purely electronic enterprises. These organizations would not even exist without the technology provided by computer-based information systems. The importance of information systems to organizations and the need for well-educated professionals in the field is the basis for strong educational programs and the development of a professional community of information systems (IS) practitioners.

Information systems involves two broad areas: (1) the acquisition, deployment, and management of an organization's information systems resources and services and (2) the development of computer-based systems and technology infrastructures for use in organization processes. Information systems professionals provide services ranging from the managerial to the highly technical. Information systems and technology skills are critical to the success of virtually all modern organizations, including small business, corporations, government, and educational institutions.

Career Opportunities

Information systems graduates work in large and small organizations of all types, helping maintain existing technology infrastructure and specifying technology solutions to business needs. They serve as the bridge between an organization's technical personnel and its business side. Well-educated information systems graduates are in high demand in accounting firms, consulting firms, large corporations, midsized companies, technical companies, government agencies, and smaller entrepreneurial concerns. Challenging career opportunities embrace a wide range of interests. The variety of employment prospects includes opportunities for everyone from those who are primarily interested in people and organizations to those who enjoy very technical activities such as database and network administration or software development.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Information Systems

For help or information on the undergraduate program, please see the Marriott School of Management Advisement Center or visit http://isys.byu.edu.

For information on management degrees, see Management section of this catalog.

Graduate Programs and Degrees

MISM Information Systems Management

For more information see the Information Systems Department Graduate Advisement Center (560 TNRB) or the BYU 2007–2008 Graduate Catalog.

General Information

Application Requirements

1. Complete or pass the competency tests for I Sys 100 and 101.
2. Have a 3.0 minimum average GPA in the four prerequisite courses: I Sys 201, 202, Acc 200, M Com 320. No grade lower than a C+ will be accepted for any of the prerequisite courses.

Note: If a student must leave the program for a mission, internship, or other reason, a leave of absence request form is required. A prompt return to the program is required. Students who have interrupted their education for more than two years or without prior approval will be required to meet the requirements of the program in effect at reacceptance.

Note: Upper-division information systems class credits earned prior to five years before graduation may not be used to meet specific graduation requirements for the BS degree. This policy does not affect the recognition of those hours earned to satisfy total university credit.

BS Information Systems, Concurrent with MISM

The MISM program has a five-year integrated option for BYU students in the undergraduate information systems program, as well as an option for students who have already completed a bachelor's degree. The first year of the undergraduate program, or the junior core, must be completed with a minimum 3.0 GPA to be eligible to apply for continuation into the master of information systems management program.

BS Information Systems (74–75 hours*)

This is a limited-enrollment program requiring departmental acceptance. Please see the college advisement center for information regarding requirements for application to this major.

Major Requirements

1. No more than 12 semester hours of upper-division transfer credit will be accepted toward the major and only 6 hours beyond the Pre-Systems Core.
2. Students are encouraged to enroll in courses outside the Marriott School of Management. Only 50 upper-division Marriott School hours count toward graduation.
3. Pass a computer proficiency requirement for spreadsheet and presentation software skills. Students may demonstrate spreadsheet and presentation skills either by earning a Pass grade in I Sys 100 and 101 or a B grade in equivalent transfer courses, or by presenting Microsoft Office User Specialist (MOUS) certificates validating core-level competency in MS Excel and PowerPoint.
4. Complete the following Pre-Information Systems courses:
   I Sys 201, 202.
   Acc 200.
   M Com 320.

   Note: The Pre-Information Systems Core must be completed with at least a 3.0 GPA (no grade lower than a C+), with no more than one repeat for each course. Repeated courses will be discounted 0.3 of a grade during the admissions process.
5. Be accepted into the information systems program.
6. Complete the following Management Core 1 and 2 courses:
   Acc 210, 241.
   Bus M 301, 384.
   Econ 110.
   Math 119.
   Stat 221.
7. Complete the following Integrated Management Core courses:
   Bus M 341, 361, 390.
   Org B 321.
   And complete one course from the following:
   ManEc 300, 358, 376, 387, 453.
8. Complete the following Information Systems Core 1 courses (taught fall only):
   I Sys 401, 402, 403, 404.
9. Complete the following Information Systems Core 2 courses (taught winter only):
   I Sys 411, 413, 414, 415.
10. Complete the following capstone course:
    BusM 498.
12. Complete Marriott School exit survey online.

*Hours include courses that may fulfill university core requirements.

Information Systems (I Sys)

Undergraduate Courses

100. Computer Spreadsheets Skills. (0.5:0:1)
Basic computer skills, focusing on spreadsheet and database programs. No technical background necessary. Fee.

101. Computer Presentation Skills. (0.5:0:1) F, W, Sp, Su
Basic computer skills focusing on developing presentations. No technical background necessary. Fee.

105. Creating Personal Web Pages. (1:2:0) F, W, Sp
Techniques and tools for developing a personal Web site, including site design and page layout. Techniques for text, pictures, and audio placement.

199R. Academic Internship: Information Systems. (1–3:Arr.:Arr. ea.) Prerequisite: selection of information systems emphasis in Marriott School of Management.
Approved on-the-job experience. Applying classroom theory and technology to actual problems; exploring career opportunities; learning role of information systems in business environment. P/F grade.

201. Introduction to Management Information Systems. (3:3:1) Prerequisite: I Sys 100, M Com 100, and declared business major.
Using technology to solve business problems. Hands-on use of spreadsheet, database, and Internet software in a business context.

202. Introduction to Computer Programming. (3:3:0) Prerequisite: I Sys 201 or concurrent enrollment (with instructor's consent); information systems major status.
Object-oriented program design and development. Principles of algorithm formulation and implementation.

401. Systems Analysis. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of I Sys 402, 403, and 404.
Early phases of systems development life cycle, including project management, planning, investigation, requirements definition, systems specifications, alternative selection. Tools and techniques of object-oriented analysis.

402. Database Systems. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of I Sys 401, 403, and 404.

Concepts and techniques of database system development, focusing on object-oriented modeling and its implementation methods.

403. Principles of Business Programming. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of I Sys 401, 402, and 404.

Programming business systems. Algorithms, data structures, programming patterns, and interfaces.

404. Data Communications. (3:3:0) Prerequisite: admission to information systems major; concurrent enrollment in same section of I Sys 401, 402, and 403.

Principles of data communications, local- and wide-area networks, hardware, software, media, standards, management, and business applications.

411. Systems Design and Implementation. (3:3:0) Prerequisite: I Sys 401, 402, 403, 404; concurrent enrollment in same section of I Sys 413 and 414.

Later phases of systems development life cycle. System architecture, user interfaces, system interfaces, and application design. Testing and integration. Object-oriented development.

413. Enterprise Application Development. (3:3:0) Prerequisite: I Sys 401, 402, 403, 404; concurrent enrollment in same section of I Sys 411 and 414.

Client- and server-side programming. Internet and Web-based applications. Enterprise systems and architectures.

414. Enterprise Services and Security. (3:3:0) W Prerequisite: I Sys 401, 402, 403, 404; concurrent enrollment in same section of I Sys 411 and 413.

Enterprise-level systems that support basic business processes; information systems control and security issues; systems integration and deployment.

415. Information Systems Capstone Project. (3:3:0) Prerequisite: I Sys 401, 402, 403, 404; concurrent enrollment in I Sys 411, 413, and 414.

Applying concepts, principles, and methods of enterprise-level information systems by designing and developing a full-scale system including hardware, software, and network.

498. Strategic Management of Information Systems. (3:3:0) W Prerequisite: I Sys 411, 412, 413; concurrent enrollment in I Sys 490.

Achieving strategic information systems alignment to create sustainable competitive advantage. Concepts and methods critical for information systems management, such as outsourcing, security, controls, and organizational transformation.

Graduate Courses

For 500- and 600-level courses, see the current Marriott School of Management Information Systems Department Web site at http://isys.byu.edu and the BYU 2007–2008 Graduate Catalog.

Information Systems Faculty

Professors

Hansen, James V. (1982) BS, MS, Brigham Young U., 1963, 1966; PhD, U. of Washington, 1973.

McKell, Lynn J. (1974) BS, Brigham Young U., 1968; MSEE, MS, MS, PhD, Purdue U., 1970, 1972, 1973, 1973.

Romney, Marshall B. (1977) BS, MAcc, Brigham Young U., 1971, 1972; PhD, U. of Texas, Austin, 1977.

Associate Professors

Dean, Douglas (1999) BS, U. of Utah, 1987; MAcc, Brigham Young U., 1989; PhD, U. of Arizona, 1995.

Hansen, Gary W. (1983) BS, MS, Brigham Young U., 1967, 1968; PhD, Indiana U., 1974.

Liddle, Stephen W. (1995) BS, PhD, Brigham Young U., 1989, 1995.

Meservy, Rayman D. (1989) BS, MAcc, Brigham Young U., 1977, 1977; PhD, U. of Minnesota, 1985.

Assistant Professors

Albrecht, Conan (2000) BS, MAcc, Brigham Young U., 1997, 1997; PhD, U. of Arizona, 2000.

Allen, Gov (2007) BS, MAcc, Brigham Young U., 1994, 1994; PhD, U. of Minnesota, 2001.

Anderson, Bonnie B. (2001) BS, MAcc, Brigham Young U., 1995, 1995; PhD, Carnegie-Mellon U., 2001.

Ball, Nicholas (2005) BS, MBA, Idaho State U., 1999, 2000; PhD, U. of Minnesota, 2005.

Lowry, Paul B. (2002) BS, MBA, Brigham Young U., 1991, 1997; PhD, U. of Arizona, 2002.

Assistant Teaching Professor

Lindstrom, Craig J. (2002) BS, MS, Utah State U., 1991, 2001.

Emeriti

Boyer, Glen L. (1967) BS, Utah State U., 1963; MS, PhD, U. of North Dakota, 1966, 1972.

Carlson, Gary (1986) BS, MS, PhD, U. of California, Los Angeles, 1956, 1958, 1962.

De Lassen, Jan (1981) BS, Texas A&M U., 1959.

Smith, Harold T. (1963) BA, MA, Colorado State Coll., 1958, 1959; EdD, Brigham Young U., 1967.

Information Technology

See School of Technology.

Instructional Psychology and Technology

Andrew S. Gibbons, Chair
150 MCKB, (801) 422-5097

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Graduate Programs and Degrees

MS	Instructional Psychology and Technology
PhD	Instructional Psychology and Technology

For more information see the BYU 2007–2008 Graduate Catalog.

Instructional Psychology and Technology (IP&T)

Undergraduate Courses

The Department of Instructional Psychology and Technology does not offer a baccalaureate degree. However, undergraduate courses are offered as service courses to other departments in the David O. McKay School of Education. Some of these classes are cross-listed with other departments.

286. Instructional Technology in Teaching. (1:1:Arr.) F, W, Sp
Using instructional design, visual design, and differentiated staffing principles along with multimedia authoring systems, telecommunication, and other computer-based tools in the development of educational applications for secondary education settings.

287. Instructional Technology for Early Childhood, Elementary, and Special Education. (2:2:Arr.)
Using instructional design, visual design, and differentiated staffing principles, along with multimedia authoring systems, telecommunication, and other computer-based tools in the development of educational applications for early childhood, elementary, and special education settings.

301. Educational Psychology. (2:2:0) F, W, Sp, Su
Basic principles of educational psychology applied to teaching, including learning theory, instructional strategies, assessment of learning outcomes, and classroom inquiry.

470R. Undergraduate Research Training. (1–3:Arr.:Arr. ea.) F, W
Introduction of undergraduate students to the concepts of research and evaluation through practical experience.

500-Level Graduate Courses (available to advanced undergraduates)

514R. Special Topics in Instructional Psychology. (1–3:Arr.:0 ea.) On dem.
—Technical Applications
—Effective Teaching
—Student Assessment

515R. Special Topics in Instructional Psychology and Technology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su On dem.

520. Foundations of Technology. (3:3:0) F
Introduction to instructional psychology and technology theory and practice: psychological foundations of human performance technology and learning sciences. Current research issues, professional organization of the field, and ethical issues.

550. Empirical Inquiry and Statistics. (6:6:0) F
Integration of empirical research and statistical analysis in evaluation. Designing, conducting, analyzing, reporting, and critically evaluating research studies.

560. Microcomputer Materials Production. (3:3:Arr.) W, Su
Prerequisite: IP&T 286 or 515R (Microcomputers in Schools).
Designing, programming, and debugging educational applications of microcomputers using a high-level computer language.

564. Instructional Design. (3:3:Arr.) F, Su
Identifying instructional problems; specifying objectives, instructional strategies, and media; analyzing learning outcomes; developing instructional materials and assessment instruments; validating instructional systems.

599R. Academic Internship. (1–6:0:18 ea.) F, W, Sp, Su
Prerequisite: departmental consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Instructional Psychology and Technology Faculty

Professors
Gibbons, Andrew S. (2003) BA, PhD, Brigham Young U., 1969, 1974.
Merrill, Paul F. (1977) BS, Brigham Young U., 1967; PhD, U. of Texas, Austin, 1970.
Osguthorpe, Russell T. (1978) BS, MS, PhD, Brigham Young U., 1971, 1973, 1975.
Sudweeks, Richard R. (1980) BS, MA, Brigham Young U., 1965, 1973; PhD, U. of Illinois, 1978.
Williams, David D. (1980) BS, Brigham Young U., 1976; MA, Western Michigan U., 1978; PhD, U. of Colorado, 1981.

Associate Professors
Campbell, J. Olin (1999) BA, Yale U., 1967; MDiv, Union Theological Seminary, 1972; PhD, Stanford U., 1978.
Inouye, Dillon K. (1978) BS, Brigham Young U., 1973; PhD, Stanford, U., 1978.

Assistant Professors
Graham, Charles R. (2002) BS, Brigham Young U., 1994; MS, U. of Illinois, 1997; PhD, Indiana U., 2002.
Yanchar, Stephen (2001) BS, Cleveland State U., 1991; MS, PhD, Brigham Young U., 1995, 1997.

Emeriti
Black, Harvey B. (1970) BA, MA, Brigham Young U., 1950, 1954; PhD, Indiana U., Bloomington, 1962.
Brown, J. Richard (1956) BS, MEd, Brigham Young U., 1949, 1956.
Bunderson, C. Victor (1991) BS, U. of Utah, 1961; PhD, Princeton U., 1965.
Card, Willard R. (1967) BS, U. of Utah, 1957; MA, San Jose State Coll., 1964.
Green, Edward E. (1972) BA, Brigham Young U., 1965; MS, EdD, Indiana U., Bloomington, 1970, 1972.
Harrison, Grant V. (1969) BA, Brigham Young U., 1963; MA, Adams State Coll. of Colorado, 1965; EdD, U. of California, Los Angeles, 1969.
Van Mondfrans, Adrian P. (1971) BS, MA, U. of Utah, 1963, 1964; PhD, U. of Wisconsin, Madison, 1967.

Integrative Biology

Keith A. Crandall, Chair
401 WIDB, (801) 422-2582

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

All degrees within this department are open enrollment programs.

The Discipline

Programs in the Department of Integrative Biology focus on training students in the organismal and broader perspectives of the biological sciences. Fields include systematics of taxonomic groups, ecology, and evolution, which often rely on the application of molecular biology and genetics.

Career Opportunities

Integrative biology entails rigorous, broad training and synthetic reasoning, which prepare students for careers in a wide variety of professional fields ranging from technical work in research laboratories to field technicians for environmental research companies or government agencies. Majors may develop their interest in such diverse areas as environmental biology, evolutionary biology, aquatic biology, molecular biology, plant biology, or taxonomy. Students satisfy the requirements for graduate studies in the biological sciences or professional schools.

The bioinformatics major is for students with interests in both the computer and the biological sciences. The degree merges these interests in the areas of bioinformatics and computational biology, giving students the skills for graduate or professional (medical, dental, law) schools or immediate employment opportunities after completing the undergraduate program, especially with biotechnology companies.

The biology composite teaching program provides a solid foundation in courses that meet the National Science Teachers Association certification requirements for secondary education biology teaching. The program also prepares students for continuing their education in graduate school.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Bioinformatics
BS	Biology Composite Teaching
BS	Integrative Biology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

This department offers MS and PhD degrees. See the graduate school Web site: http://www.byu.edu/gradstudies

BS Bioinformatics (64–65 hours*)

Program Objectives

Bioinformatics is an interdisciplinary program offering substantial training in both the biological sciences and the physical and mathematics sciences, with an emphasis on computer programming coupled with genetics and molecular biology. Students will acquire programming, databasing, and operating system skills plus a foundation in mathematics and statistics.

Major Requirements

1. Complete the following:
   Biol 120, 240, 340, 420.
   InBio 265, 365, 370, 465.
2. Complete the following:
   Chem 105, 106.
   C S 142, 235, 236, 240.
   Math 112, 113, 214.
   Stat 441, 442.
3. Complete one course from the following:
   Chem 152, 351.
4. With approval of an advisor, complete 6 hours from upper-division electives in computer science, statistics, mathematics, or biology.

*Hours include courses that may fulfill university core requirements.

BS Biology Composite Teaching (88 hours*, including licensure hours)

Program Objectives

Students completing the bachelor's degree in biology composite teaching are prepared to:

1. Design lesson plans and laboratory experiences and give formal classroom instruction for middle-school and secondary school courses in biology and related topic areas. This includes leading field trips for outdoor nature exposure.
2. Teach (with specific-focus instruction in the program methods) courses in advanced placement biology and its related fields.
3. Help students appreciate the fragility of natural systems; teach principles for the preservation, management, and use of natural ecosystems; and teach how to critically evaluate competing demands on natural resources.
4. Help students discriminate between legitimate scientific knowledge and society's many quasi-scientific claims associated with earth's management, medical issues, etc.

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 220, 240, 340, 350, 420, 421.

   Note: Biol 420, 421 must be taken at BYU.
2. Complete the following:
   Chem 105, 152, 285.
   Geol 101.
   InBio 235, 331, 341, 344, 370, 380, 441, 470.
   Phscs 105.
   Stat 221.
3. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      InBio 276R, 377, 378, 379.
      IP&T 286.
      Sc Ed 350, 353.

Note: Fingerprinting and FBI clearance must be completed prior to enrollment in InBio 377. InBio 377, 378, and 379 should be taken concurrently in the semester prior to taking Sc Ed 476R.

b. Complete 12 hours from the following:
Sc Ed 476R.

Recommended Courses

Geol 103, 111, 112.
InBio 230, 352, 431, 432, 433, 443, 445, 446, 447.
Math 119 (to fill the GE Advanced Languages requirement).
PAS 282, 283.

*Hours include courses that may fulfill university core requirements.

BS Integrative Biology (62–68 hours*)

The Discipline

The integrative biology degree provides students with current, practical knowledge of plants and animals, emphasizing whole organism biology in both ecological and evolutionary contexts. Broad, synthetic training, from molecular to community levels of organization, equips students to address critical issues and contemporary biological problems associated with the long-term preservation of earth's biodiversity. Elective flexibility allows students to emphasize the botanical or zoological fields, or create a combined program of study. Undergraduate research opportunities may include internships, museum collections curation, bioinventory and data-basing activities, applied molecular genetics, and field and laboratory research in ecology, conservation biology, or evolutionary biology.

Major Requirements

1. Complete the following:
Biol 120, 220, 240, 340, 350, 420, 421.
Chem 105, 106.
InBio 331, 341.
2. Complete one course from the following:
InBio 380.
PAS 440.
PDBio 305, 362.
3. Complete one course from the following:
Chem 285, 351.
4. Complete one of the following options:
Either Phscs 105, 106
Or Phscs 121, 220.
5. Complete one of the following options:
Either Math 119
Or Math 112, 113.
6. Complete 16 hours of electives from one of the following options:
   a. Combined option: complete 8 hours from both lists below for a total of 16 hours:
      1. Taxonomy and systematics: complete 8 hours from the following:
      InBio 430, 441, 442, 443, 445, 446, 447, 510, 511, 512, 541.
      MMBio 417.
      PAS 330, 515.
      2. Ecology and evolution: complete 8 hours from the following:
      Biol 360.
      Chem 481.
      InBio 352, 370, 450, 452, 453, 470, 525, 550, 556, 557, 558, 560, 580, 581.
      PAS 282, 283, 355, 357, 411, 416, 417, 419, 424, 551, 552, 553, 554.
      Stat 221.
   b. Mentoring option: with written approval of assigned advisor, complete up to 8 hours of one of the following, plus electives evenly divided between items A.1 and A.2 above to total 16 hours.
      Biol 494R.
      InBio 494R.
7. Complete an exit interview.

Recommended Courses for Career Options

Botany
Students seeking career and graduate school opportunities in botanical fields should build their electives on a foundation of basic plant biology courses. Coupled with the broad integrative biology core, the following courses provide students with the greatest diversity of options for postgraduate work or training in plant biology:

InBio 430, 510, 511, 512.
PAS 282, 283, 355, 440, 515.

Students completing InBio 430 and PAS 330 and 355 often find summer employment opportunities with government land agencies.

Federal Register Requirements
The federal register requirements for botany, ecology, and zoology can be met by choosing appropriate electives. Botany requires 24 semester hours in plant-related courses. Ecology requires 30 semester hours in basic and applied biology, including at least 9 semester hours in ecology and 12 hours in the physical and mathematical sciences. Zoology requires 20 semester hours in zoology and related animal sciences.

GIS Applications
Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.

Natural Resource Policy
Students seeking careers in natural resource policy should complete InBio 370, 417, and 450 and consider a minor in political science (21 hours). See the Political Science Department for details.

*Hours include courses that may fulfill university core requirements.

Integrative Biology (InBio)

Undergraduate Courses

101. Principles of Biology Laboratory. (1:0:2) F, W Prerequisite: concurrent enrollment in Biol 100.
Required of all elementary education and early childhood education majors; enrollment limited to elementary education or early childhood education majors.

134. Appreciation of Nature. (3:2:2) F, W Prerequisite: basic biology course.
Identifying common plants and animals; techniques for teaching natural history. Field trips required.

235. Field Botany. (3:3:6) F
Recognition, characteristics, and uses of common trees and shrubs.

265. (InBio-PAS) Genomics. (3:2:1) F, W Prerequisite: bioinformatics major status or Biol 120.
Introduction to genomics and genome projects (human, plant, bacterial, yeast, parasites). Introduction to genes and genomes; computational and statistical approaches for analyzing genomic data, including genome sequencing and annotation, gene expression and the transcriptome, proteomics and functional genomics, and genetic variation and SNPs.

270. Animal Restraint. (1:0:2) F, W
Restraint and first aid techniques for pet, laboratory, domestic, and wild animals.

276R. Exploration of Teaching in Biological Sciences. (4:Arr.:Arr. ea.) F, W Prerequisite: minimum GPA of 2.85 in Chem 105, Biol 120, 220, and one major course.
Field-based initial teaching experience directed at helping prospective teachers experience demands and opportunities associated with teaching secondary students.

291R. Veterinary Medicine Seminar. (0.5:1:0 ea.) F
Preview into veterinary medicine as a profession. Application procedure and preparation for veterinary school.

331. Plant Diversity. (4:3:3) F, W Prerequisite: Biol 220 or instructor's consent.
Comparative organization and evolutionary significance of morphological, physiological, reproductive, and ecological differences in fungi, algae, and principal groups of land plants. Laboratory included.

341. Animal Diversity. (4:3:3) F, W Prerequisite: Biol 220 or instructor's consent.
Comparative organization and evolutionary significance of morphological, physiological, reproductive, and ecological differences in invertebrates and vertebrates. Laboratory included.

344. Natural History of the Vertebrates. (3:2:2) F Prerequisite: InBio 341.
Intensive study of selected vertebrate species stressing natural history and systematics. Designed to accommodate needs of biology teaching majors.

352. Introduction to Marine Biology. (3:3:0) W Prerequisite: InBio 341.
Marine life, the sea as an environment, and research methods.

353. Field Biology. (4:2:7) On dem. Prerequisite: InBio 341.
Field investigations into the natural history of living organisms. Extended field trips required.

365. Computational Biology. (3:2:1) F Prerequisite: InBio 265, C S 240.
Computational analysis of DNA data; introduction to bioinformatics databasing using Pearl and SQL; configuration of UNIX workstations for bioinformatics analyses.

370. Bioethics. (2:1:3) F, W Prerequisite: introductory biology course.
In-depth lecture and small-group discussion of varied bioethical issues. LDS Church positions emphasized when appropriate.

377. Teaching Methods and Instruction in Biology. (3:Arr.:Arr.) F, W Prerequisite: InBio 276R; fingerprinting and FBI clearance.
Developing meaningful and engaging instruction for secondary students in biological sciences; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378. Practicum in Biology Teaching. (1:0:3) F, W Prerequisite: concurrent enrollment in InBio 377.
Implementing meaningful and engaging instruction for secondary students in biology; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

379. Classroom Management. (1:1:0) F, W Prerequisite: concurrent enrollment in InBio 377, 378.
Current theory, research, and application in classroom management; creating positive teacher-student and peer relationships; developing optimal learning environments.

380. Comparative Animal Physiology and Anatomy. (4:3:3) F Prerequisite: Biol 220 or instructor's consent. Recommended: InBio 341.
Structure and function of animal organ systems; structural and physiological responses to demands of and changes in environment; evolutionary constraints on anatomy and physiology.

392R. Preveterinary Preceptorship. (1–2:0:Arr. ea.) F, W, Sp
Supervised on-the-job exposure to veterinary medicine under a clinical setting, supplemented with academic assignments.

398R. Biology Teaching Seminar. (1–2:0:0 ea.) F, W, Sp, Su
Students in an academic team assist instructor in design and/or implementation of a class.

430. Plant Classification. (3:2:3) W, Sp Prerequisite: Biol 220 or instructor's consent.
General principles of taxonomy and classification, emphasizing family identification and use of keys to the temperate flora.

441. Entomology. (3:2:3) F Prerequisite: InBio 341 or equivalent.
External morphology, natural history, evolution, distribution, and phylogeny of insects. Insect collection required.

442. Advanced Invertebrate Zoology. (5:6:0) F even yr. Prerequisite: InBio 341.
Functional morphology, cladistics, ecology, behavior and interrelationships of invertebrates.

443. Ichthyology. (3:2:3) F odd yr. Prerequisite: InBio 341.
Fish systematics, evolution, morphology, distribution, and natural history.

445. Herpetology. (4:3:2) W even yr. Prerequisite: InBio 341.
Reptile and amphibian evolution, systematics, morphology, distribution, and natural history. Lab emphasizes taxonomy, classification, and distribution of western U.S. species.

446. (InBio–PAS) Ornithology. (3:2:3) W Prerequisite: InBio 341.
Avian systematics, evolution, distribution, and natural history. Two three-day field trips required.

447. Mammalogy. (3:2:3) F Prerequisite: InBio 341.
Mammalian diversity, evolution, distribution, and natural history. Two three-day field trips required.

450. Conservation Biology. (3:3:0) F Prerequisite: Biol 220, 350.
Scientific principles of conservation: applying population genetics and phylogenetic and ecological theory to preservation of biological diversity; developing sustainable ecological systems compatible with human resource use.

452. Marine Ecology. (3:2:3) Sp Prerequisite: InBio 352 and instructor's consent.
Marine ecology of planktonic, sublittoral, rocky shore, sandy shore, and mudflat communities. Extensive field trips.

453. Development of Marine Animals. (3:0:6) Sp Prerequisite: InBio 352 and instructor's consent.
Culturing, studying, and reporting on the development of eggs, embryos, and larvae of marine animals.

465. Bioinformatics. (3:2:1) W Prerequisite: InBio 365.
3-D protein structural comparisons, hidden Markov models for database comparisons, homology detection, multiple sequence analyses, and protein family comparisons. Exercises in computer programming in genomics.

470. History and Philosophy of Biology. (3:3:0) F Prerequisite: biology core courses through Biol 420.
Development of fundamental generalizations of biology; nature of science; applications to major philosophical issues of current science.

485R. Case Studies in Animal Biology. (2:1:3 ea.) Sp, Su Prerequisite: instructor's consent.
Topics vary.

494R. Mentored Research. (1–6:0:Arr. ea.) F, W, Sp, Su Prerequisite: supervisor's consent.
Independent student research under faculty supervision.

500-Level Graduate Courses (available to advanced undergraduates)

510. Advanced Plant Taxonomy. (3:2:3) F even yr. Prerequisite: InBio 230 or equivalent.
Review of taxonomic literature and research methods. One three-day field trip required.

511. Lichenology. (3:2:3) On dem.
Classification, morphology, and ecology of lichens. Field trip required.

512. Angiosperm Phylogeny. (3:2:4) F odd yr. Prerequisite: InBio 230 or equivalent.
Description, classification, phylogeny, and geographic distribution of flowering plant families.

525. Animal Disease, Biosecurity, and Zoonoses. (3:3:0) W Prerequisite: InBio 380 or instructor's consent.
Animal disease, emphasizing prevention, organ systems affected, biosecurity, and zoonotic potential.

541. Aquatic Entomology. (4:2:4) F even yr. Recommended: InBio 441 or equivalent.
Morphology, classification, biology, and functional ecology of aquatic insects. Field trips required.

550. Physiological and Chemical Ecology. (3:3:0) W odd yr. Prerequisite: Biol 350 or equivalent.
Ecophysiological response of plants to their environment.

555. Evolutionary and Ecological Modeling. (2:2:0) W even yr. Prerequisite: senior status in bioinformatics program or graduate status; Stat 511, 512, or equivalent quantitative experience; instructor's consent.
Using models in ecology. Practical experience in analytical, simulation, and agent-based models.

556. Limnology. (2:2:0) F even yr. Prerequisite: Biol 350, Chem 106; or equivalents.
Lakes and reservoirs; their biota and physical/chemical properties.

557. Stream and Wetland Ecology. (3:3:0) F odd yr. Prerequisite: Biol 350, Chem 106.
Stream and wetland ecology; their biota and their physical/chemical properties.

558. Aquatic Ecology Laboratory. (1:0:3) F even yr. Prerequisite: InBio 556 or 557 or concurrent registration.
Field experience in aquatic ecology, including shoreline processes, fluvial mechanics, and quantitative and qualitative assessment of lotic and lentic systems. Overnight field trips required.

559R. Advanced Topics in Ecology and Evolution. (1–6:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Current topics in ecology, evolution, and systematics.

560. Population Genetics. (4:4:0) W odd yr. Prerequisite: Biol 420 or equivalent.
Basic principles of population genetics applied to natural populations; drift, selection, and nonrandom mating; inferring population subdivision, migration, and gene flow.

580. Scanning Electron Microscopy. (3:2:4) F, W Prerequisite: instructor's consent.
Theoretical and practical scanning electron microscopy of biological, physical science, and engineering samples, emphasizing practical applications.

581. Transmission Electron Microscopy. (3:2:4) F Prerequisite: instructor's consent.
Theoretical and practical transmission electron microscopy of biological, physical science, and engineering samples, emphasizing practical applications.

590R. Advanced Science In-Service. (1–5:Arr.:Arr. ea.) Su
In-service course for science teachers. Subjects may include:
—Ecology Science In-Service
—Genetics Science In-Service
—Evolution Science In-Service
—Botany Science In-Service
—Meteorology Science In-Service

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Integrative Biology Faculty

Professors
Belk, Mark C. (1992) BS, MS, Brigham Young U., 1985, 1987; PhD, U. of Georgia, 1992.
Cates, Rex G. (1985) BS, MS, Utah State U., 1965, 1968; PhD, U. of Washington, 1971.
Crandall, Keith A. (1995) BA, Kalamazoo Coll., 1987; AM, PhD, Washington U., 1993.
Jeffery, Duane E. (1969) BS, MS, Utah State U., 1962, 1963; MA, PhD, U. of California, Berkeley, 1966, 1972.
Nelson, C. Riley (1999) BS, MS, Utah State U., 1980, 1984; PhD, Brigham Young U., 1986.
Roeder, Beverly L. (1990) BA, Whittenberg U., 1978; DVM, Ohio State U., 1982; MS, Kansas State U., 1986; PhD, Pennsylvania State U., 1990.
Rogers, Duke S. (1989) BS, MS, Texas A&M U., 1976, 1979; PhD, U. of California, Berkeley, 1986.
Shiozawa, Dennis K. (1978) BA, Weber State Coll., 1972; MS, Brigham Young U., 1975; PhD, U. of Minnesota, St. Paul, 1978.
Sites, Jack W., Jr. (1982) BS, MS, Austin Peay State U., 1973, 1975; PhD, Texas A&M U., 1980.
St. Clair, Larry Lee (1976) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of Colorado, 1984.

Associate Professors
Braithwaite, Lee F. (1964) BS, MS, PhD, Brigham Young U., 1959, 1962, 1970.
Johnson, Leigh A. (1999) BS, Brigham Young U., 1991; PhD, Washington State U., 1996.
McClellan, David A. (2001) BS, MS, Brigham Young U., 1991, 1994; PhD, Louisiana State U., 1999.
Peck, Steven L. (2000) BS, Brigham Young U., 1986; MS, U. of North Carolina, 1988; PhD, North Carolina State U., 1997.
Rader, Russell B. (2000) BS, MS, Brigham Young U., 1977, 1982; PhD, Colorado State U., 1987.
Whiting, Michael (1997) BS, Brigham Young U., 1990; PhD, Cornell U., 1994.

Assistant Professors
Hanegan, Nikki L. (2004) BS, U. of Houston, Central, 1978; MS, PhD, U. of Texas, Austin, 1990, 2001.
Hatch, Kent A. (2001) BS, Brigham Young U., 1990; MS, PhD, U. of Wisconsin, 1995, 1996.
Johnson, Jerald B. (2004) BS, U. of Utah, 1993; MS, Brigham Young U., 1999; PhD, U. of Vermont, 2000.

Professional Professors
Adair, Marta (2001) BS, MS, Brigham Young U., 1981, 1990.
Furniss, H. Blaine (1971) BS, MS, Brigham Young U., 1968, 1975.
Gardner, John S. (1989) BS, Oregon State U., 1968; MS, PhD, Brigham Young U., 1976, 1978.
Wilcox, Edward R. (2005) BA, PhD, U. of California, Davis, 1977, 1982.

Emeriti
Allen, James Vincent (1969) BS, MS, Brigham Young U., 1967, 1968.
Allman, Verl Phillips (1950) BS, MS, Brigham Young U., 1948, 1952.
Barnes, James R. (1969) BS, Brigham Young U., 1963; MS, PhD, Oregon State U., 1967, 1972.
Baumann, Richard W. (1975) BA, MS, PhD, U. of Utah 1965, 1967, 1970.
Farmer, James L. (1969) BS, California Inst. of Technology, 1960; PhD, Brown U. 1966.
Heckmann, Richard A. (1972) BS, MS, Utah State U., 1954, 1958; PhD, Montana State U., 1970.
Heninger, Richard W. (1966) BS, Brigham Young U., 1957; MS, PhD, Oklahoma State U., 1959, 1961.

Jorgensen, Clive D. (1960) BS, MS, Brigham Young U., 1954, 1957; PhD, Oregon State U., 1964.
Pritchett, Clyde L. (1967) BS, MS, Brigham Young U., 1960, 1962; PhD, U. of Wyoming, 1977.
Smith, Lamont W. (1970) BS, Brigham Young U., 1960; MS, U. of Wisconsin, Madison, 1962; PhD, West Virginia U., 1970.
Tanner, Wilmer W. (1949) BA, MA, Brigham Young U., 1936, 1937; PhD, U. of Kansas, 1949.
Tolman, Richard R. (1982) BS, MS, U. of Utah, 1963, 1964; PhD, Oregon State U., 1969.
Welsh, Stanley L. (1960) BS, MS, Brigham Young U., 1951, 1957; PhD, Iowa State U. of Science and Technology, 1960.
Whitehead, Armand T. (1969) BS, Brigham Young U., 1965; PhD, U. of California, Berkeley, 1969.
Wood, Stephen L. (1956) BS, MS, Utah State U., 1946, 1948; PhD, U. of Kansas, 1953.

International and Area Studies

International and Area Studies Advisement Center
Noelani Sanchez, Supervisor
273 HRCB, (801) 422-3548

International and Area Studies Program Coordinators

Ancient Near Eastern Studies, Dana M. Pike
Asian Studies, James A. Davis
European Studies, Scott Sprenger
International Relations, Darren G. Hawkins
Latin American Studies, Ted E. Lyon
Middle East Studies/Arabic, Donna Lee Bowen

Admission to Degree Programs

All undergraduate international and area studies degree programs are open enrollment.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Ancient Near Eastern Studies
BA	Asian Studies
BA	European Studies
BA	International Relations
BA	Latin American Studies
BA	Middle East Studies/Arabic
Minors	Ancient Near Eastern Studies
	Asian Studies
	International Development
	Latin American Studies
	Middle East Studies

Students should see the International and Area Studies Advisement Center for help or information concerning the undergraduate programs.

General Information

International Career Center

The International Career Center, located in 273 HRCB (international_career@byu.edu), guides students of any major with their preparation for an international career. The ICC hosts international career-oriented lectures and offers advisement, employment and graduate school information, and networking assistance.

International Study Programs.

International Study Programs (ISP) are open to students from all university majors. Students need not be formally admitted to BYU to participate in International Study and BYU credit may be transferred to their home institution.

Study Abroad: BYU's traditional off-campus study programs. In these programs students are able to further their general education; pursue specialized courses in languages, the social sciences, humanities, fine arts, and other fields; gain valuable insights into their own country; and further international understanding.

International Volunteers: A program similar to Study Abroad but with a more significant component of service learning at an international location and under the tutelage of faculty.

International Internships: Short-term, on-the-job apprentice training abroad under the direction of a firm, government agency, NGO, or other such institution.

Field Studies: A research experience abroad for small numbers of students directed by faculty, who generally do not accompany the students.

For futher information, see the Office of International Study Programs in the David M. Kennedy Center, 280 HRCB.

International and Area Studies (IAS)

Undergraduate Courses

100. Introduction to International Studies. (1:1:0)
Academic expectations in the major; career orientation; review of campus resources; faculty presentations.

199R. Academic Internship: International. (1–3:Arr.:Arr. ea.)
Nonsupervised undergraduate foreign internship.

201R. Cultural Survey. (1–4:2:2 ea.) Prerequisite: performing group or ISP participant status.
Multidisciplinary survey of various countries and regions in preparation for extended experience abroad.

220. Introduction to Development Studies. (3:3:0) F
Exploration of international development in nonformal education, micro-enterprises, community organizations; hunger, poverty, and other specific problems in developing areas of the world.

301. Kennedy Center Lecture Series. (1:1:0)
Weekly lectures by national and international authorities on world affairs; designed as an introductory class for all international and area studies majors.

351R. Model United Nations (MUN) Preparation. (1–3:Arr.:0 ea.)
Preparation for participating in MUN projects: on campus, in public schools, and at the United Nations in New York.

353R. International Outreach Preparation. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Developing abilities, through lectures and rigorous readings, to prepare and share international understanding in public and private schools.

354R. Model Arab League Preparation. (0.5:1:0 ea.) F 1st blk, W 2nd blk.
Understanding Middle Eastern governments and foreign policies. Preparing for and attending the Model Arab League Conference.

360R. International Field Study Preparation. (1–9:Arr.:0 ea.) For students preparing for International Field Studies, International Internships, or Study Abroad programs. F 2nd blk, W, Sp
Cross-cultural field research and survival with a regional emphasis and application.

361. Post-Fieldwork Analysis and Writing. (2:2:0) Prerequisite: IAS 360R.
Writing course designed to help students write a quality research paper.

397R. Topics in International and Area Studies. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Study relating to current world problems.

399R. Academic Internship: International. (1–9:Arr.:Arr. ea.) Prerequisite: acceptance into program.
Individualized work or volunteer experience in an international setting. Class must be coordinated through International Study Programs.

420. Senior Seminar in International Development. (3:3:0) W Prerequisite: IAS 220.
Integration of knowledge and experience from previous course work and internship activity. Discussion and analysis of the learning experience, followed by completion of a major research paper.

421. Seminar on Japanese Workplace: Society and Culture. (3:3:0) F, Su Prerequisite: instructor's consent.
Required seminar for interns in the Japan seminar and intern program (held only in Japan).

Asian Studies

The Discipline

The Asian Studies major is an interdisciplinary program designed to prepare students for careers and advanced study in the specialized field of Asia not provided by a major in one department. In the program, students acquire working competence in Chinese, Japanese, Korean, or another approved Asian language; a broad knowledge of Asian civilization; and a more specialized knowledge in an academic discipline.

Career Opportunities

The Asian Studies major is useful to those contemplating careers in academic areas, private industry, or government service. The import-export field and international services are particularly interested in persons who have a strong background in Asian Studies.

BA Asian Studies (47–71 hours*)

Major Requirements

1. Complete the GE languages of learning requirement in an Asian language.
2. There is a strong expectation that majors will do work in Asia via Study Abroad, internships, etc.
3. Complete the following core courses:
   Asian 200, 342.
   Hist 231.
   Pl Sc 385.
4. Complete a minimum of 1 hour from the following core course:
   Asian 495.
5. Complete one of the following focus history core course options:
   a. China: Hist 340, 341.
   b. Japan: Hist 343, 344.
   c. Korea plus China or Japan: Hist 346; 340 or 343.

   Note: Courses should coincide with language choice.
6. Complete one of the following focus language options:
   a. Chin 301; 302 or 441.
   b. Japan 302; 321 or 322.
   c. Korea 301, 340.
7. Complete 24 hours from the following elective courses (no more than 12 hours may be selected from any one department):
   Anthr 343.
   Chin 327, 343, 344, 345R, 347, 441, 442, 443, 444.
   Geog 272, 273.
   Hist 340, 341, 342, 343, 344, 349.
   Hum 240.
   Japan 345, 350, 351, 352, 441, 443, 444.
   Korea 340, 345, 441, 443.
   Pl Sc 348, 353, 354, 386, 388.
   Rel C 351.

Other electives: If approved beforehand, up to 9 hours of 330R or 399R credit may be counted for overseas work done under one of the following: Study Abroad, internships, collaborative research, or independent field studies.

*Hours include courses that may fulfill university core requirements.

Minor Asian Studies (20–36 hours*)

Minor Requirements

1. Complete the following:
   Hist 231.
2. Complete one of the following tracks:

China Track

a. Complete the following prerequisite courses (or equivalent experience):
   Chin 101, 102, 201, 202.
b. Complete the following:
   Chin 301, 302.
c. Complete three courses from the following (**Note:** Only one course per discipline area will count toward the minor):
   Anthr 343.
   Chin 343, 344, 345.
   Geog 272.
   Hist 340, 341, 342.
   Pl Sc 353, 388.

   Note: Study Abroad/Internship credit is also applicable.

Japan Track

a. Complete the following prerequisite courses (or equivalent experience):
   Japan 101, 102, 201, 202.
b. Complete the following:
   Japan 300, 302.
c. Complete three courses from the following (**Note:** Only one course per discipline area will count toward the minor):
   Geog 272.
   Hist 343, 344.
   Japan 345, 350, 351, 352, 390.
   Pl Sc 354, 386.

   Note: Study Abroad/Internship credit is also applicable.

Korea Track

a. Complete the following prerequisite courses (or equivalent experience):
   Korea 101, 102, 201, 202.
b. Complete the following:
   Korea 301, 302.
c. Complete three courses from the following (**Note:** Only one course per discipline area will count toward the minor):
   Geog 272.
   Hist 346.
   Korea 345.
   Pl Sc 348.

   Note: Study Abroad/Internship credit is also applicable.

Pan Asia Track

a. Complete 8 hours of a single Asian language (excluding Mandarin, Japanese, and Korean).
b. Complete three courses from the following (**Note:** Only one course per discipline area will count toward the minor, and it should coincide with the language choice if possible):
   Asian 342.
   Geog 272, 273.
   Hist 340, 343, 349.
   Hum 240.
   Pl Sc 348, 385.
   Rel C 351.

   Note: Study Abroad/Internship credit is also applicable.

*Hours include courses that may fulfill university core requirements.

Asian Studies (Asian)

Undergraduate Courses

200. Introduction to Asian Studies: Methods and Materials. (3:3:0) F, W
Sources, materials, and methods of research and writing; critical analysis of research project.

330R. Asian Studies Abroad. (1–5:Arr.:Arr. ea.)
Preparatory course approved for Asian Seminar (Study Abroad).

342. Asian Literary Traditions. (3:3:0)
Comparative analysis of Asian literary works spanning several traditions.

495. Senior Seminar. (1–3:Arr.:0) F, W, Sp, Su Prerequisite: Asian Studies coordinator's consent.
Learning research and writing skills necessary to prepare and present major senior research paper.

500-Level Graduate Course (available to advanced undergraduates)

501R. Intensive Introduction to Asian Studies for Teachers and Prospective Teachers. (1–3:Arr.:0 ea.)
Readings, lectures, individual study, and curriculum development; integration for school teachers of Asian Studies into the curriculum of social studies, world history, and geography.

European Studies

The Discipline

European studies is an interdisciplinary degree designed to combine advanced-language experience with study in humanities, social science, and/or business. Courses are taught by European experts from across a variety of BYU's academic departments and are intended to develop skills in analytical thinking, methods of interpretation, perceptive reading, and competent writing, as well as an in-depth understanding of European affairs. Building on the University Core and GE Foreign Languge requirements, the European studies degree is grounded in an introduction to European studies (Europ 200) and 12 hours of European history.

At the junior level, the degree splits into two tracks:

- Track A: 12 credit hours in European society which draws from history, political science, economics, business, sociology, and geography.
- Track B: 12 credit hours of European culture which draws from the humanities, language and literature, art history, philosophy, etc.

At the senior level, students take an additional 12 credit hours focused on an interrelated set of European issues, decided upon in conjunction with the European studies coordinator.

Career Opportunities

The European studies degree can lead to a number of excellent career possibilities. With a broad, general background in European languages and area knowledge, graduates are well prepared for careers in international branches of government, nonprofit organizations, international industry and commerce, domestic and foreign teaching, the Peace Corps, the military, and many other professions requiring an expert knowledge of European language, culture, and politics.

The European studies major is also excellent training for professional schooling in international business, law, medicine, journalism, editing, advertising, etc. Many previous area studies graduates have chosen jobs in the State Department, Citizenship and Immigration Services, the FBI, and international agencies.

Students are encouraged to double major or at least have a strong minor in another discipline to enhance their career prospects. The combination of European area studies with another discipline is attractive to employers.

BA European Studies (42–58 hours*)

Major Requirements

1. Complete the GE Foreign Language requirement in a European language.
2. Complete the following:
   Europ 200.
3. Complete the following history requirement:
   a. Complete one course from the following:
      Cl Cv 304, 307.
      Hist 300, 301.
   b. Complete three courses from the following:
      Hist 302, 303, 304, 305, 306, 307.
4. Complete one of the following disciplinary tracks:

European Society Track

a. Complete two courses from the following:
   Bus M 430.
   Econ 215, 257.
   Geog 260.
   Hist 310.
   Pl Sc 341 (prerequisite: Pl Sc 150, 200).
   Soc 345.
b. Complete two courses from the following:
   Hist 312, 319, 320, 321, 390R.

European Culture Track

a. Complete one course from the following:
   ArtHC 304, 306, 310, 320, 325, 329, 330, 335, 340, 350.
   Bulgn 330.
   Czech 330.
   Cl Cv 241, 245, 246.
   Fren 361, 362, 495.
   Germ 330.
   Hung 330.
   Ital 420, 421.
   Latvi 330.
   Phil 214.
   Polsh 330.
   Port 345.
   Rom 340.
   Russ 330.
   Scand 430.
   Sln 330.
   Span 345.
   SrbCr 330.
   TMA 395, 396.
   Ukrai 330.
   Or any Hum 400-level seminar on European topic.
b. Complete two courses from the following literature requirement:
   (1) Any 300- or 400-level literature course from student's foreign language.
   (2) Any 300- or 400-level comparative literature course with a European emphasis.

   Note: An upper-division English literature course may substitute for one of these courses on approval of the European Studies Committee.
c. Complete one course from the following:
   Phil 320R, 330R, 340R, 350R.

   Note: Phil 340R and 350R must be on a European philosopher.

5. Complete 12 hours of supporting course work. In consultation with the program director, propose a list of courses (typically 300-level or higher) that have a coherent logic relative to educational and career goals. This list must then be approved by the European Studies Committee.
6. Complete an exit interview during the final semester. Students come to the interview prepared to lead a discussion on one major European issue of their choice that they've encountered in their program. This could be a current political/economic issue like the European Union or immigration, or it could be a historical/interpretive issue regarding our understanding of European identity, history, culture, etc.

Recommended Courses

These courses can be used to fill the Civilization and Social Science GE requirements or for enrichment electives:

Social Sciences
Anthr 101.
Econ 110.
Pl Sc 150, 170.
Soc 111.

Arts and Letters
ArtHC 111.
Engl 230.
Hum 101, 201, 202.
Music 101.
Phil 110.

*Hours include courses that may fulfill university core requirements.

European Studies (Europ)

Undergraduate Course

200. Introduction to European Studies. (3:3:0) F
Introduction to the major, the core disciplines involved and integrated in European Studies, and European Studies as a discipline.

336R. European Studies. (1–6:Arr.:Arr.ea.)
Social sciences core course approved for Study Abroad programs in London, Vienna, Paris, and other locations.

International Development

The Discipline

International development is the study of basic social needs in developing areas or countries. It includes academic disciplines such as formal and nonformal education and literacy, economic development, primary health care, small business activities, water sanitation, agricultural productivity, nutrition, ecological preservation, etc. Development obviously implies raising the level and quality of life throughout the "underdeveloped" world.

Students should pursue solid preparation in an established major as well as classroom knowledge and experience in international development. This minor is designed to strengthen

and expand the chosen major. Students will be assigned a faculty mentor in their major department who will help coordinate the minor with the major. In addition to a focused course of study, internship experience is highly encouraged. Internships provide valuable experience in applying development theory as well as allowing students to earn credit toward the minor (and in some cases the major as well).

Minor International Development (18 hours*)

Minor Requirements

1. Complete the following:
   IAS 220.
2. After consulting with an advisor, complete 12 hours from the following (or other applicable approved courses):
   Anthr 247, 312, 432, 438.
   Biol 150, 350.
   Bus M 430, 431, 432, 471.
   Comms 382.
   Econ 230, 257, 410, 440.
   EdLF 362, 363.
   Geog 310, 313, 331, 341, 410.
   Geol 404.
   Hlth 436, 480.
   IAS 353R, 397R, 399R.
   InBio 450.
   NDFS 424, 435.
   Pl Sc 372, 472, 535, 536.
   Soc 335, 345, 424, 429, 530.
3. Complete 3 hours of the following:
   IAS 420.

*Hours include courses that may fulfill university core requirements.

International Relations

The Discipline

International relations is an interdisciplinary major emphasizing the systematic study of political and economic relations between governments and people in different states, as well as comparisons across different political and economic systems. Students majoring in international relations also come to understand the historical and geographic basis for current international relationships.

Career Opportunities

The international relations major gives students a strong liberal arts education along with useful technical skills. In addition to substantive knowledge, international relations majors will learn analytical concepts and ideas that allow them to organize, explain, and make sense of relations between states and comparisons among them. High proficiency in math and statistics, writing, and a foreign language will prepare for a wide variety of career paths—including, but not limited to, government, law, business, and international organizations. Many career paths will require graduate-level training. Therefore, the international relations degree should be seen as certifying fluency in the ideas and methods of multiple fields so that students can find and pursue their own specialized interests rather than as a terminal degree.

It is important to distinguish international relations as a field from a more general definition of "international," which might include anything (people, language, culture, traditions, etc.) beyond the territorial boundaries of the United States. For students interested in the broad study of anything international and foreign, BYU's international relations degree will not provide the best training. In fact, no reasonable degree can include the systematic study of everything international and foreign. It should be remembered that BYU students have a wealth of options through which to pursue their particular international and foreign interests. These include:

- Social science majors with a strong international component, such as economics, geography, history, or political science.
- Area studies majors, including Latin American, Asian, and Middle East studies.
- Language majors.
- Other majors combined with a minor in one of the above areas.

BA International Relations (57–79 hours*)

Major Requirements

1. Complete the following introductory core courses:
   Econ 110.
   Geog 120
   Pl Sc 150, 170.
2. Complete the following research foundations and methods courses:
   Pl Sc 200.
   And complete the following:
   Math 112.
   Note: If you have received a B+ or better in Math 119, you may petition for a substitution for Math 112.
   And complete one course from the following:
   Econ 378.
   Pl Sc 328.
   Note: Students who choose Econ 378 are encouraged to also complete Econ 388.
3. Complete the following:
   Econ 380, 381.
4. Complete one course from the following:
   Econ 431, 432, 458, 459.
5. Complete one course from the following:
   Hist 393.
   Pl Sc 350, 376.
6. Complete one of the following international relations courses:
   Pl Sc 370, 372, 373, 375, 376, 377, 378.
7. Complete one of the following comparative politics courses:
   Pl Sc 341, 344, 347, 350, 352, 353, 354, 355, 357, 358.
8. Complete a foreign language proficiency: Students are to complete one language at a specified level with all attendant prerequisites. Some prerequisites may be waived depending upon previous language experience. The specific requirements for each language are listed on a separate sheet available from the International and Area Studies Advisement Office or the international relations coordinator.
9. Specializations: Complete one of the following tracks (no double-counting of major courses allowed):
   a. International Politics
      Complete four courses from the following. At least one course must be from history and at least one course from political science.
      Anthr 432.
      Comms 381, 382.
      Geog 341.
      Hist 293, 307, 331, 376, 391, 398R.
      Pl Sc 370, 371, 373, 375, 377, 378, 382, 471, 472, 473.
   b. Political Economy
      Complete four courses from at least two disciplines. At least two courses must be from economics.
      Econ 382, 388, 431, 432, 458, 459, 478.
      Pl Sc 344, 372, 444.

c. Asian Politics and History
Complete four courses from the following. At least one course must be from political science and one course from history.
Geog 272, 273.
Hist 231, 341, 342, 344, 346, 348.
Pl Sc 348, 353, 354, 385, 386, 388.

d. Latin American Politics and History
Complete four courses from the following. At least one course must be from political science and one course from history. Students cannot count both Hist 359 and Pl Sc 380.
Geog 255.
Hist 252, 355, 356, 358.
Pl Sc 358, 380.
Soc 335.

e. Middle Eastern Politics and History
Complete four courses from at least two disciplines. At least one course must be from history.
Anthr 340.
Geog 271.
Hist 240, 241, 244.
MESA 350.
Pl Sc 357, 381, 452, 474.

Note: Hist 242 and 243 do not substitute here.

f. European Politics and History
Complete four courses from the following. At least one course must be from political science and one course from history.
Geog 260, 265.
Hist 307, 310, 312, 323, 324, 325, 327, 328, 331, 332.
Pl Sc 341, 347, 351.

With the prior approval of the international relations coordinator, a maximum of 3 hours of IR 398R, 399R, or IAS 351R may be used toward meeting the four-course requirement of specialization. Only the second semester of IAS 351R would be allowed.

10. Complete a capstone research experience in one of the following ways:
Asian 495.
IR 398R, 399R (these courses require prior approval of the International Relations coordinator).
Lt Am 495.
MESA 495R.
Pl Sc 450, 470.

Note: Only Pl Sc 450 or 470 can fill the GE Advanced Written and Oral Communication requirement when coupled with Pl Sc 200.

Note: For students in the relevant specialization, Asian 495, Lt Am 495, and MESA 495R will satisfy the capstone requirement.

Note: It is possible to fulfill the capstone requirement by completing a substantial research paper in an internship, Study Abroad, or other setting. Students who wish to do this must meet the requirements listed on the International Relations Web site, http://kennedy.byu.edu/academic/internationalrelations/index.html, and receive *prior* approval of the IR coordinator.

Note: For domestic internships, see your college advisement center for Semester Away information.

Note: Students majoring in international relations may not pursue a double major in either economics or political science because of the course overlap between international relations and those majors. For the same reason neither may students majoring in international relations minor in either economics or political science.

Recommended

Either Hist 201, 202
Or Pl Sc 201, 202.

Rel C 351.

*Hours include courses that may fulfill university core requirements.

International Relations (IR)

Undergraduate Courses

398R. Directed International Study. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent; international relations major coordinator's consent.
Study and research in an international setting.

399R. Academic Internship: International. (0.5–12:0:0 ea.) Prerequisite: acceptance into program; international relations major coordinator's consent.
Individualized work or volunteer experience in an international setting. Must be coordinated through International Study Programs.

Latin American Studies

The Discipline

Designed to give a rich background in the languages, culture, and conditions of Latin America, the Latin American Studies program provides a multidisciplinary approach to university education. Courses from BYU's various academic departments (anthropology, Spanish and Portuguese, political science, geography, sociology, history, etc.) teach skills in perceptive reading, analytical thinking, and clear and forceful writing, as well as provide in-depth understanding of Latin American cultures, languages, and history.

Students are invited to consult with the director of undergraduate studies regarding selection of classes.

Career Opportunities

Excellent career opportunities exist for those who prepare well in Latin American Studies. The degree offers a broad, general background in the liberal arts, and graduates are well prepared for careers in government, private industry, nonprofit organizations, some domestic and foreign teaching opportunities, the Peace Corps, the military, and other professions in which an understanding and appreciation of Latin America are required. Many graduates go into law, medicine, business, journalism, editing, advertising, etc. Others have had success in government, such as working for the State Department, immigration, the FBI, and other agencies.

Students are encouraged to take a double major or at least a strong minor in a single academic discipline to enhance their career objectives. The combination of another discipline and Latin American Studies makes the student attractive to employers desiring specific job skills as well as cultural understanding and appreciation.

General Information

Foreign Experience. Latin American Studies students are strongly encouraged to participate in Study Abroad programs in Mexico or Chile, in an internship program somewhere in Latin America, or in department-sponsored research in the area.

BA Latin American Studies (36–52 hours*)

Major Requirements

1. Complete the following:
   Lt Am 211.
2. Complete the following prerequisite courses or equivalents:
   Either Port 101, 102, 201, 202
   Or Span 101, 102, 105, 106, 205, 206.
3. Complete one of the following options:
   Either Port 321, 355
   Or Span 321, 355.
4. Complete three social science courses from the following (no more than one course from each discipline):
   Geog 255.
   Hist 251 or 252.
   Pl Sc 358 or 380.
   Soc 335.
5. Complete two humanities courses from the following:
   Hum 260.
   Port 439R, 451.
   Span 339 or Port 339.
   Span 365, 423, 451, 461R.
6. Complete at least 6 elective hours from the following:
   Anthr 326, 355, 365.
   Hist 251, 252, 355, 356, 357, 359, 363, 385.
   Hum 425R (topic: Latin America)
   IAS 399R.
   Music 206.
   NDFS 203.
   Pl Sc 379R, 380.
   Port 339, 355, 395R, 439R, 451, 452, 453, 459R, 520, 521, 522, 529R, 599R.
   Soc 335, 445.
   Span 339, 355, 365, 395R, 423, 425, 438, 450R, 454R, 455R, 456R, 458R, 459R, 461, 520, 521, 522.
7. Complete the following:
   Lt Am 495.
8. Complete 3 hours of an internship, service learning, or Study Abroad course. These must be approved in advance by the director of Latin American Studies.

*Hours include courses that may fulfill university core requirements.

Minor Latin American Studies (18–34 hours*)

Minor Requirements

1. Complete the following prerequisite courses or equivalents:
   Either Port 101, 102, 201, 202
   Or Span 101, 102, 105, 106, 205, 206.
2. Complete one of the following courses:
   Port 321.
   Span 321.
3. Complete one of the following courses:
   Hum 260.
   Port 355.
   Span 355.
4. Complete four courses from the following:
   Anthr 326, 355, 365.
   Geog 255.
   Hist 251, 252, 355, 356, 357, 359, 363, 385, 411R.
   Hum 260.
   IAS 399R.
   Lt Am 211, 495.
   Pl Sc 358, 380.
   Port 339, 451.
   Soc 335, 445.
   Span 339, 365, 395R, 423, 438, 450R, 451, 454R, 455R, 456R, 459R, 461.
5. Students may receive up to 3 elective hours for service learning, an internship, or Study Abroad.

*Hours include courses that may fulfill university core requirements.

Latin American Studies (Lt Am)

Undergraduate Courses

211. Introduction to Latin American Studies. (3:3:0)
History, politics, sociology, geography, and culture of Latin America.

302. Project Work in Latin America. (2:0:0) Prerequisite: Lt Am 301.
Teaching literacy, health, nutrition, gardening, leadership development, construction, etc., in Latin America.

495. Senior Seminar in Latin American Studies. (3:3:0) Prerequisite: instructor's consent for minors.
Sources, materials, and methods of research and writing; critical analysis of a research project. Required for all Latin American Studies majors their senior year.

Middle and Near Eastern Studies

BA Ancient Near Eastern Studies (61–62 hours*)

The Discipline

Ancient Near Eastern Studies deals with the history, literature, religions, and cultures of the ancient Near East from 3000 B.C. to A.D. 640. It involves study in the humanities, social sciences, and ancient scripture. Geographically the ancient Near East consists of the region currently designated the Middle East. The Ancient Near Eastern Studies major is structured to provide students with a broad understanding of the civilizations of the ancient Near East and to emphasize the study of the Hebrew Bible and related literature or the Greek New Testament and related literature in their broader ancient Near Eastern context.

Career Opportunities

The Ancient Near Eastern Studies major prepares students to pursue graduate work and an academic career in all areas of biblical and ancient Near Eastern studies. Ancient Near Eastern Studies, with its emphasis on critical reading, thinking, and writing skills, also provides quality training for students entering professional or library science programs. Additionally, an Ancient Near Eastern Studies degree offers relevant preparation for students seeking to teach seminary and institute in the Church Educational System.

Major Requirements

1. Complete the following core courses:
   ANES 201, 310, 495.
   Hist 238, 239.
   Rel A 211, 212, 301, 302.
   And complete one of the following:
   Anthr 351, 378.

2. Complete one of the following language/literature options:
   a. Hebrew Bible and related literature:
      1. Complete one course from the following:
         Heb 131, 133.
      2. Complete one course from the following:
         Heb 132, 134.
      3. Complete the following:
         ANES 331, 363, 430R.
         Heb 331, 431.
      4. Complete two enrollments in the following:
         Heb 432R.
   b. Greek New Testament and related literature:
      1. Complete the following:
         ANES 332.
         Cl Cv 363.
         Clscs–Hist 430R.
         Greek 101, 102, 201, 311.
      2. Complete two enrollments in the following:
         Greek 411R.
3. Complete 6 hours from the following elective courses:
   ANES 353R, 392R.
   Anthr 351 or 378 (whichever is not taken in item 1 above).
   ArtHC 302, 310.
   Cl Cv 310, 340R (topic must be relevant to Ancient Near Eastern Studies. The Ancient Near Eastern Studies coordinator's approval is required).
   Honrs 224R.
   NE Lg 345, 511R.
   Rel A 304, 314, 392R (topic must be relevant to Ancient Near Eastern Studies. The Ancient Near Eastern Studies coordinator's approval is required).
   Any Ancient Near Eastern Studies, Greek, or Biblical Hebrew courses not used in item 2 above.

*Hours include courses that may fulfill university core requirements.

BA Middle East Studies/Arabic (53–61 hours*)

The Discipline

Middle East Studies examines the Arabic-, Turkish-, and Persian-speaking peoples and countries of the Middle East from a variety of perspectives. The region itself provides the focus, but historians, political scientists, anthropologists, economists, geographers, linguists, art historians, and literary and religious scholars all provide important insights into the area, each from the context of their own discipline. Undergirding all of these perspectives is linguistic skill in Arabic, through which access to original sources, press analyses, and native speakers is possible. Middle East Studies as a whole tries to integrate these insights and to provide analysis and understanding that go beyond any single discipline.

Career Opportunities

The Middle East Studies/Arabic major aims specifically to prepare students to work as analysts and experts on the Middle East for government agencies, businesses, and other organizations. Linguistic skill in Arabic, as well as a solid understanding of the history, politics, and culture of the region is vital to these agencies, many of them desperate for real expertise and language ability. With its integrated, interdisciplinary focus on a single region and a strong emphasis on acquiring a usable knowledge of Arabic, it is also a good liberal arts major for students planning a career in law, medicine, or business in general—in fact, any field where a broad understanding and finely honed analytical and writing skills are valued.

Major Requirements

1. Complete the following prerequisite courses (may be waived for students with appropriate language experience):
   Arab 101, 102.
2. Complete the following language requirement:
   Arab 201, 202, 211R, 300, 302, 311R.
3. Complete the following background skills course:
   MESA 201.
4. Complete the following major courses:
   Geog 271.
   Hist 240, 241.
   Hum 242.
   MESA 250, 350.
   Pl Sc 357.

   Note: It is strongly recommended that students already have exposure to basic Islamic history and beliefs before taking MESA 350 (courses such as MESA 201, Hum 242, Rel C 356).
5. Complete the following capstone course:
   MESA 495R.
6. Complete 6 hours from the following elective courses:
   Anthr 340.
   ArtHC 377.
   FLang 101R, 102R (Turkish or Farsi).
   Heb 101, 102, 201.
   Hist 244, 339R (Middle Eastern topics only).
   IAS 399R (with prior approval).
   MESA 398R, 399R, 451, 467R.
   Pl Sc 381, 452, 474.
   Any other Arabic courses not already taken.
7. Complete one semester's residence in the Arab world. Most students will complete this requirement by taking part in the Arabic Study Abroad program (usually September to December of even-numbered years), during which advanced Arabic courses required for the major may be completed.

Middle East/Government Service Track

Students interested in using their Arabic language expertise to work in government (Department of State, Central Intelligence Agency, National Security Agency, military services, Federal Bureau of Investigation, etc.) are strongly recommended to complete the following courses, some of which will count for general education credit.

Econ 110.
Pl Sc 110, 150, 200, 376.

Note: Econ 110 and Pl Sc 110 combined may fill the American Heritage general education requirement.

Other courses to consider:
Geog 341.
Pl Sc 313, 315, 321, 370, 371, 372, 373, 375, 377, 378, 471.
Rel A 301.
Rel C 351, 355, 356.

Students are strongly encouraged to complete an internship through the Washington Seminar or in the Middle East. The internship should enable the student to apply his or her Arabic language ability or interest in the Middle East or learn the workings of the U.S. Congress.

*Hours include courses that may fulfill university core requirements.

Minor Ancient Near Eastern Studies (21–23 hours*)

Minor Requirements

1. Complete the following core courses:
   Hist 238, 239.
2. Complete one of the following language/literature options:
   a. Hebrew Bible and related literature:
      1. Complete one course from the following:
         Heb 111, 131.
      2. Complete one course from the following:
         Heb 112, 132.
      3. Complete one course from the following:
         Rel A 211, 212.
      4. Complete the following:
         Rel A 301, 302.
   b. Greek New Testament and related literature:
      1. Complete the following:
         Greek 311, 411R.
         Rel A 211, 212.
      2. Complete one course from the following:
         Rel A 301, 302.
3. Complete 3 hours from the following:
   ANES 201, 310, 331, 332, 392R.
   Anthr 351, 378.
   ArtHC 310.
   Cl Cv 363.
   NE Lg 340, 345.

*Hours include courses that may fulfill university core requirements.

Minor Middle East Studies (20 hours*)

Minor Requirements

1. Complete 8 hours in Arabic, modern Hebrew, Persian, or Turkish.
2. Complete the following:
   Hum 242.
   MESA 201.
3. Complete one course from the following:
   Anthr 340.
   Geog 271.
   Hist 240, 241.
   Pl Sc 357.
4. Complete one course from the following:
   Anthr 340.
   ArtHC 377.
   Geog 271.
   Hist 240, 241, 244, 334.
   MESA 350.
   Pl Sc 357, 474.

Recommended
Rel C 351; or 355 and 356.

*Hours include courses that may fulfill university core requirements.

Ancient Near Eastern Studies (ANES)

Undergraduate Courses

201. Introduction to Ancient Near Eastern Studies. (3:3:0) F
Historical background, research skills, and methods of academic inquiry relevant to ancient Near Eastern studies.

310. History and Culture of Ancient Israel. (3:3:0 F odd yr. Prerequisite: Hist 238 or 239.
Israelite history and culture in Canaan/Israel from c. 2000 B.C. to A.D. 200. Methodology for using the Bible in historical research.

331. Readings in Ancient Near Eastern Texts to 330 B.C. (3:3:0) W even yr. Prerequisite: Hist 238.
Reading and analysis of major ancient Near Eastern texts in English translation. Methodology for dealing with potential biblical parallels.

332. Readings in Ancient Near Eastern Texts, 330 B.C. to A.D. 640. (3:3:0) F even yr. Prerequisite: Hist 239.
Reading and analyzing major ancient Near Eastern texts in English translation. Methodology for dealing with potential biblical parallels.

353R. Archaeological Fieldwork in the Near East. (1–3:Arr.:Arr. ea.) Prerequisite: Ancient Near Eastern Studies coordinator's consent.
Archaeological fieldwork and corresponding field school activities in the Near East.

363. Hebrew Bible Studies. (3:3:0) W odd yr. Prerequisite: Heb 331.
Current analytical methods used in academic study and interpretation of the Hebrew Bible.

392R. Topics in Ancient Near Eastern Studies. (2–3:Arr.:0 ea.)
Topical studies in the ancient Near East based on student interest and faculty expertise.

430R. Advanced Topics in Ancient Near Eastern Studies. (3:3:0 ea.) F even yr.
Seminar involving in-depth examination of an ancient Near Eastern topic and then writing about it.

495. Senior Seminar in Ancient Near Eastern Studies. (3:3:0) W
Capstone seminar utilizing research, analytical, and writing skills to produce a senior research paper on an ancient Near Eastern topic.

Middle East Studies/Arabic (MESA)

Undergraduate Courses

201. Introduction to Middle East Studies. (3:3:0) F
Introduction to Middle East from historical, art/literary, and various social science perspectives, including introduction to disciplinary methodologies and writing research papers.

250. Introduction to the Religion of Islam. (3:3:0) Alt. yr.
Exploring the rise of Islam, the life of Muhammad, basic beliefs and practices, major figures and movements, and contemporary political and social issues.

350. Islam in Contemporary Society. (3:3:0) W
Islam in modern society: doctrine, practices, institutions, approaches to the challenges of modern life; the rise of fundamentalism.

398R. Directed Middle East Study. (1–3:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent; Middle East Studies/Arabic coordinator's consent.
Study and research in the Middle East.

399R. Academic Internship. (1–3:Arr.:Arr. ea.) On dem. Prerequisite: Middle East Studies/Arabic coordinator's consent.
Individualized work or volunteer experience in the Middle East or with an organization dealing with the Middle East. Must be coordinated through International Study Programs or the Washington Seminar and with the consent of the Middle East Studies/Arabic coordinator.

451. The Figure of Muhammad in Islamic Tradition. (3:3:0) Alt. yr. Prerequisite: Arab 202.
Introduction to Muslim views regarding Muhammad as found in two significant Islamic textual traditions: the Sira (biography)/Maghazi (battles) and Hadith (acts) of Muhammad.

467R. Topics in Middle East Studies. (0.5–3:Arr.:0 ea.)
Topics vary.

495. Senior Seminar in Middle East Studies. (3:3:0) W
Prerequisite: MESA 201; major status; senior status.
Capstone course, including major research paper demonstrating ability to integrate cross-disciplinary information and methodology.

Italian

See French and Italian.

Japanese

See Asian and Near Eastern Languages.

Javanese

See Center for Language Studies.

Jerusalem Center for Near Eastern Studies

General Information

1. The Brigham Young University Jerusalem Center for Near Eastern Studies is an educational and cultural center created for study in the Near East, emphasizing religion, the humanities, and the social sciences. The Jerusalem Center has four principal goals:
   a. Provide students an opportunity to study the scriptures in the setting in which the patriarchs, prophets, and the Lord himself lived and taught, and by that study to gain understanding of and commitment to the truths of the gospel of Jesus Christ.
   b. Expand students' understanding of the religions, cultures, history, archaeology, geography, languages, and politics of the ancient and modern Near East.
   c. Foster research and creative endeavors by BYU faculty, students, and visiting scholars.
   d. Promote understanding with other peoples, cultures, and religious faiths that trace their roots to the Holy Land.
2. To achieve these goals, the Jerusalem Center offers a core curriculum with courses in the Old and New Testament and in the ancient and modern Near East. In addition, the center provides specialized courses in archaeology, geography, history, and culture of the Near East, including language study in Hebrew and Arabic.
3. The Jerusalem Center has marvelous physical facilities on Mount Scopus overlooking the oldest part of the city of Jerusalem. Classrooms, a library, a learning center, auditoriums, student and faculty apartments, a gymnasium and conditioning room, and a cafeteria provide a complete learning environment.

Academic Program

1. **Calendar and Program Emphasis.** Five programs are offered during the calendar year, scheduled to approximate the Provo campus calendar: fall and winter semesters (four-month programs), spring term (two-month program), and two summer terms (two-month programs).
   a. The fall and winter semester programs are designed for students who are currently enrolled at a college or university seeking their first undergraduate degree. Most of the courses offered are at the upper-division level. Students are encouraged to prepare themselves in advance for this exceptional experience by taking such courses as Pl Sc 170, Geog 120, Hist 300, 302, Arab 101, Heb 101.
   b. The fall and winter programs include field trips within the Holy Land and to Jordan, Sinai, and Egypt.
   c. The spring and summer term programs are open to students who are currently enrolled in a college or university seeking their first undergraduate degree. Recent high school graduates with the intention of pursuing a degree at a college or university are eligible to enroll during summer term. Both lower- and upper-division survey courses with extensive field study are available.
2. **Predeparture Orientation Course.** This Independent Study course (NES 100) is taken the semester or term before a student's work at the Jerusalem Center.
3. **Curriculum.** The following subject areas are taught at the center:
   a. Biblical Studies: Old Testament and New Testament
   b. Ancient Near Eastern Studies
   c. Modern Near Eastern Studies
   d. Introductory course in either Hebrew or Arabic (required during fall and winter semesters; not offered during spring or summer terms).

e. Elective courses in biblical studies, ancient and modern Near Eastern Studies, and archaeology as arranged each semester.

Note: Some courses taken at the Jerusalem Center for Near Eastern Studies may be applied toward degrees in Near Eastern Studies, International Relations, and other majors in the College of Family, Home, and Social Sciences. Students should contact their advisement centers concerning specific degree requirements.

4. **Special Programs Offered Periodically at the Jerusalem Center for Near Eastern Studies.** These programs include intensive modern Arabic, intensive modern Hebrew, and nursing.

Jerusalem Center

Undergraduate Courses

Courses offered at the Jerusalem Center are *not* offered on the Provo campus and hence cannot be retaken.

Orientation Course

NES 100. Jerusalem Center Orientation. (1:2:0) Prerequisite: application for a Jerusalem Center foreign study program.
Introduction to the peoples and cultures of the Near East. Required of all participants prior to departure.

Religion Courses

Rel A 101. Old Testament Survey. (2:1.5:3)
Survey of Old Testament integrated with extensive field study in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies spring and summer term programs.

Rel A 111. New Testament Survey of the Gospels. (2:1.5:3)
Survey of New Testament Gospels integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies spring and summer term programs.

Rel A 303. Old Testament Studies. (3:3:4)
Study of Old Testament integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies fall and winter semester programs.

Rel A 311. New Testament Studies of the Gospels. (3:2:4)
Study of New Testament Gospels integrated with extensive field experiences in biblical world; leads to understanding, appreciation, and application of scriptural teachings today. Offered as part of Jerusalem Center for Near Eastern Studies fall and winter semesters.

Near Eastern Studies Courses

NES 101R. Topics in Near Eastern Studies. (1–3:Arr.:Arr. ea.)
Studies based on individual and program needs. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

NES 136. Introduction to Near Eastern Studies. (2:2:1)
Survey core course in social science/humanities. Elective credit for major and minor in Near Eastern Studies only. Offered as part of spring and summer term programs at the Jerusalem Center for Near Eastern Studies. Does not receive GE credit.

NES 326. Introduction to Near Eastern Studies. (2:2:1) Prerequisite: at least junior class standing.
Social science/humanities core course. Elective credit for major and minor. Offered (as part of the summer term program) at the Jerusalem Center for Near Eastern Studies only. Does not receive GE credit.

NES 336. Ancient Near Eastern Studies. (3:2:4)
Social science/humanities core course emphasizing ancient history extending to Byzantine period. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 347. (NES-Hist 242) Arab and Islamic Civilization. (2:2:1)
Social science/humanities core course covering Arab and Islamic civilization; historical evolution of Middle East to present. Provides overview of modern Palestinian society. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 349. (NES-Hist 243) Jewish Civilization. (2:2:1)
Social science/humanities core course; broad introduction to Jewish self-understanding and history, focusing on relationships among people, faith, and land. Elective credit for major and minor in Near Eastern Studies. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters. Does not receive GE credit.

NES 398R. Advanced Topics in Near Eastern Studies. (1–3:Arr.:Arr. ea.)
Studies based on individual and program needs. Elective credit for major and minor in Near Eastern Studies. Also offered at the Jerusalem Center for Near Eastern Studies during all programs.

NES 499R. Special Topics in Near Eastern Studies. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Studies based on individual and program needs.

Language Courses

Arab 100. Introduction to Arabic. (1:1.5:0)
Beginning Arabic. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

Heb 100. Introduction to Hebrew. (1:1.5:0)
Beginning Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only during fall and winter semesters.

Heb 313. Readings in the Old Testament. (4:5:0) W
Readings in the Old Testament in Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 321. Intermediate Conversation and Media. (3:3:0) W alt yr. Prerequisite: Heb 101, 102.
Capitalizing on daily life in Jerusalem to increase speaking, reading, writing, and listening comprehension in modern Hebrew. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 411R. Advanced Conversation. (4:4:4) Prerequisite: Heb 311R or equivalent.
Emphasizes conversation in everyday situations. Students role play various situations in class and then apply their learning in Jerusalem. Offered at the Jerusalem Center for Near Eastern Studies only.

Heb 421. Readings in the Hebrew Translation of the New Testament. (3:3:0) Sp alt yr.
Readings in the New Testament in Hebrew translation. Offered at the Jerusalem Center for Near Eastern Studies only.

Note: Heb 312 (Hebrew Media), Heb 313, Heb 411R (Advanced Conversation), and Heb 421 are offered in the intensive modern Hebrew program. Arab 312 (Arabic Media) and 411R (Advanced Conversation) are offered in the intensive modern Arabic program. The intensive Hebrew and Arabic programs are offered alternate years during the winter program only.

Jerusalem Center for Near Eastern Studies Faculty

Faculty members on professional development leave from the following academic areas at Brigham Young University are selected for up to one-year teaching appointments at the Jerusalem Center: Religious Education, Near Eastern Studies, History, Political Science, and foreign languages. Faculty members are also selected from the Church Educational System, BYU—

Idaho, and BYU—Hawaii. Faculty members are expected to pursue an approved program of research, writing, and travel in addition to teaching courses.

Resident Faculty

Part-time faculty are drawn from local Palestinian and Israeli academic institutions.

Special Programs Faculty

Faculty members on professional development leave from Brigham Young University are also selected for teaching appointments in special programs at the Jerusalem Center: Arabic, Hebrew, nursing, ancient Near Eastern sudies, and modern Near Eastern studies.

Kazakh

See Center for Language Studies.

David M. Kennedy Center for International Studies.

See International and Area Studies section of this catalog.

Korean

See Asian and Near Eastern Languages.

Center for Language Studies

Ray T. Clifford, Director
3086 JFSB, (801) 422-1201

College of Humanities Advisement Center
1175 JFSB , (801) 422-4789

General Information

To make the exceptional foreign language capabilities of BYU available to a large audience, the Center for Language Studies offers a variety of language courses during the summer term (mid-June to mid-August) as well as during the academic year.

Summer intensive courses include:

Advanced language/culture courses for returned missionaries (and others of comparable ability), especially in less commonly taught languages. Some of these courses will fulfill the general education language requirement.

Foundation courses covering the equivalent of a full academic year of study in a major language.

Students may earn up to two semesters of academic language credit for an intensive summer course. Students need not be regular BYU students to enroll and to receive credit during the summer term. Student demand and availability of qualified faculty determine which languages are taught each summer.

Interested students and potential adjunct faculty are requested to register their desires to participate in summer programs as early as possible by completing the survey form on the center's Web page, http://cls.byu.edu, or by contacting the office at 3086 JFSB.

Language and culture courses for returned missionaries (see departmental pages for additional language courses):

Note: Some of the following courses are designated as "culminating courses" to fulfill the general education language requirement. Returned missionaries should receive advice from the relevant department when multiple classes in the language of their interest are listed.

Academic-year courses include two categories:

- Established courses taught as regular daytime classes.
- On-demand courses that are taught if sufficient student demand and qualified teachers are available. Enrollment in these courses is generally through the Division of Continuing Education, Evening Classes. Most of the less commonly taught languages are listed under the general title Foreign Language (FLang).

Courses offered:

Department of Humanities, Classics, and Comparative Literature

Dansh 340.
Finn 340.
Norwe 340.
Swed 340.

Department of Asian and Near Eastern Languages

Cant 202.
Chin 112, 201, 202.
Japan 221, 301.
Korea 301.

Department of Germanic and Slavic Languages

Bulgn 330.
Czech 330.
Dutch 340.
Germ 330.
Hung 330.
Polsh 330.
Russ 330.
Sln 330.
SrbCr 330.
Ukrai 330.

Department of French and Italian
Fren 201, 321, 340.
Ital 321, 340.
Rom 340.

Department of Spanish and Portuguese
Port 315.
Span 321.

Center for Language Studies

The center offers the following courses—often in collaboration with language departments—depending on demand and availability of qualified faculty. The number and types of classes vary. (Students should check with their major advisement center to determine whether the class offered fulfills the GE Foreign Language requirement.)

Afrikaans	Haitian Creole	Niuean
Akan	Hawaiian	Norwegian
Allbanian	Hebrew	Polish
Arabic	Hindi	Portuguese
Armenian	Hmong	Quechua
Aymara	Hungarian	Quiche
Basque	Icelandic	Rarotongan
Bicolano	Ilangot	Romanian
Bulgarian	Ilocano	Russian
Burmese	Ilonggo	Samoan
Cakchiquel	Indonesian	Serbian
Cambodian	Italian	Slovenian
Cantonese	Japanese	Spanish
Catalan	Javanese	Swahili
Cebuano	Kazakh	Swedish
Croatian	Korean	Tagalog
Czech	Laotian	Tahitian
Danish	Latin	Taiwanese
Dutch	Latvian	Thai
Estonian	Lithuanian	Tongan
Farsi	Malagasy	Trukese
Fijian	Malay	Turkish
Finnish	Mandarin	Ukrainian
French	Maori	Urdu
Ga	Marshallese	Vanuatau
German	Maya	Vietnamese
Greek (Classical)	Mongolian	Waray-Waray
Greek (Modern)	Navajo	Welsh
Guarani		

Less commonly taught languages listed under the general title FLang 330R may also fulfill the GE Foreign Language requirement.

Upon completion of an approved culminating language course that fulfills the foreign language general education requirement, returned missionaries and others with comparable skills may receive additional graded credit by examination for classes leading to the level of the culminating course (up to an additional 16 credit hours). In some cases, up to 12 credit hours may be earned by examination *without taking the culminating course*, but all such credit will be pass/fail credit. An examination once taken for pass/fail credit cannot be retaken or reevaluated for graded credit. Contact the College of Humanities Technology and Research Support Center for information about these examinations. All language credit earned by enrollment on campus will be graded.

Foreign Language Courses (FLang)

101R. First-Year Language Study. (4:5:1 ea.)
Vocabulary building, grammar, listening, speaking, reading, and writing.

102R. First-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 101R in same language.
Vocabulary, grammar, listening, speaking, reading, writing, and culture.

201R. Second-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 102R in same language.
Conversation, vocabulary building, and reading and writing skills.

202R. Second-Year Language Study. (4:5:1 ea.) Prerequisite: FLang 201R in same language.
Continued emphasis on conversation, vocabulary building, reading, and writing. Culminating course for GE Languages of Learning requirement. Not an entry course for returned missionaries.

305R. Language Skills Development. (1–4:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Increasing skill and ability in at least one of the following areas: grammar, lexicon, pronunciation, orthography, listening, speaking, reading, writing, or cultural awareness.

321R. Advanced Grammar. (3:3:0 ea.) Prerequisite: FLang 202R in same language.
Systematic review of grammar and syntax of less commonly taught languages.

330R. Advanced Language Proficiency Through Cultural Studies. (3:3:0 ea.) Prerequisite: FLang 202R or equivalent in same language.
Culture, with listening, speaking, reading, writing, and grammar as secondary emphases. Entry course for returned missionaries or others of equivalent language experience. Required course for obtaining language credit by examination. May fulfill the GE Foreign Language requirement.

340R. Introduction to Literature. (3:3:0 ea.) Prerequisite: FLang 330R in same language.
Advanced study of literature of less commonly taught language. Continued listening, speaking, writing, grammar, and culture.

350R. Advanced Language Study for Career Purposes. (3:3:0 ea.) Prerequisite: FLang 330R in same language.
Concentration on language/culture issues for specific careers.

377R. Foreign Language Teaching Methods. (1–3:Arr.:0 ea.) Prerequisite: native- or advanced-level proficiency in a less commonly taught language.
Teaching methods specific to teaching less commonly taught language courses. Lectures, demonstrations, and microteaching. Topics include curriculum/lesson planning, reflective teaching, and communicative language teaching.

Note: Prospective teachers and TAs should take this course before or while teaching a less commonly taught language course.

382R. Language Study Colloquium. (1:1:0 ea.) F, W
Weekly lectures/presentations on language research and creative projects currently underway at Brigham Young University. Pass/Fail credit only.

490R. Special Studies in Second Language Applications. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Faculty-supervised instruction for advanced students. Individual or group study. Course work established by contract and director's approval.

Welsh Courses (Welsh)

101A,B. First-Year Welsh. (2:2:1 ea.)
Pronunciation, grammar fundamentals, and vocabulary building, emphasizing conversation.

102. First-Year Welsh. (4:4:0) Prerequisite: Welsh 101 or equivalent.
Pronunciation, grammar fundamentals, and vocabulary building, emphasizing conversation.

201. Second-Year Welsh. (4:4:0) Prerequisite: Welsh 101 and 102 or equivalent.
Conversation, vocabulary building, and reading and writing skills, emphasizing reading.

Laotian

See Center for Language Studies.

Latin

See Center for Language Studies and Department of Humanities, Classics, and Comparative Literature.

Latin American Studies

See International and Area Studies.

Latvian

See Germanic and Slavic Languages.

J. Reuben Clark Law School

See the BYU 2007–2008 Graduate Catalog or access the law school Web site at http://www.law2.byu.edu/admissions/.

Linguistics and English Language

Lynn E. Henrichsen, Chair
Dallin D. Oaks, Associate Chair
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College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All undergraduate degree programs in the Department of Linguistics and English Language are open enrollment.

The Discipline

Linguistics is the study of language in all its aspects—from speech sounds to sentence formation to meaning; from how language is organized and used in a social setting to how it is organized and processed in the brain or by computers. Linguists study language form, language change, language acquisition, and even the texts in which language is recorded. Linguists recognize that the communicative power of language is what brings cohesion to all human enterprises. For the student interested in the nature of language, linguistics is the subject to study.

The science of linguistics has many real-world applications, including translation, information storage/retrieval, lexicography, editing, and language teaching. In addition to its majors in general linguistics and in English language, BYU's Department of Linguistics and English Language offers undergraduate minor programs (as well as graduate degrees) in several of these areas.

Career Opportunities

A linguistics degree with an emphasis in computers may lead to jobs in high technology, e.g., machine translation, information retrieval, speech recognition and production software, and lexicography. Linguistics is also recognized as a strong specialization for those pursuing a career in military intelligence or technical writing.

The English language major is in many ways similar to the linguistics major, though its focus is more specifically on English linguistics, an important focus given the now international status of the English language as a language of wider communication. The major provides useful preparation for careers that require special attention to the English language, such as advertising and technical writing. The English language major along with a TESOL or editing minor is an especially strong combination.

The teaching of English to speakers of other languages is an applied linguistics area of high demand, both within the United States and around the world (see further description under TESOL below).

In addition, the linguistics and English language majors are excellent preparations for those planning graduate studies in areas as diverse as law, international business, tourism, library science, TESOL, communicative disorders, and speech pathology, not to mention graduate studies in specific languages or in linguistics itself.

General Information

The Department of Linguistics and English Language strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course

will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	English Language
BA	Linguistics
Minors	Editing
	Humanities Computing
	Linguistics
	Linguistic Computing
	TESOL
	TESOL K–12

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Linguistics
Cert	TESOL
MA	TESOL

For more information see the BYU 2007–2008 Graduate Catalog.

BA English Language (51 hours)

Major Requirements

1. Complete the following prerequisite to all core courses:
   ELang 223.
2. Complete the following core courses:
   ELang 273, 322, 324, 325, 326, 327, 495R.
3. Complete one course from the following:
   ELang 362, 468.
   Ling 550.
4. Complete one of the following period courses:
   ELang 525, 526, 527.
5. Complete three courses from the following:
   CHum 210, 230, 250, 310, 355.
   ELang 362, 421R, 468, 521R, 522, 524, 525, 526, 527, 529, 535, 548.
   Ling 450, 485, 545, 550.

   Note: Only one computers and the humanities (CHum) course can be used to fill this requirement.
6. Complete 12 credit hours (to a 200-level or higher) of university course work (or the equivalent) in any single language. This may be the same language used to satisfy the GE Foreign Language option. A language relevant to the historical development of English is strongly recommended, namely Latin, French, German, or classical Greek.

BA Linguistics (47–53 hours*)

Major Requirements

1. Complete the following prerequisite:
   Ling 330.
2. Complete the following courses:
   Ling 420, 427, 430, 450, 490.
3. Complete 15 credit hours (to a 200-level or higher) of university-level course work (or the equivalent) in a single foreign language (American Sign Language also qualifies). Students intending to pursue graduate studies in linguistics are strongly encouraged to study a non-Indo-European language. Non-native speakers of English may elect to use English to fill this requirement. If they choose to earn the credit by special examination, they must afterwards take a culminating culture course (Engl 230 or 232 or Hum 261 or 262, or an equivalent class). If they choose to earn the credit by taking classes, they must enroll for ESL 301, 302, 303, 304, and a culminating culture course.
4. Complete one of the following options:
   a. Complete an approved university minor in one of the following areas (approx. 18–21 hours): TESOL, linguistic computing, or editing.
   b. Complete 15 hours of approved electives:
      (1) Nine credit hours from linguistic (Ling) courses other than those in items 1 and 2 above.
      (2) Six credit hours from:
      Any additional linguistics (Ling) courses.
      Any English language (ELang) courses (except ELang 223).
      Anthr 309, 420.
      Phil 420.
      Psych 375, 376.

*Hours include courses that may fulfill university core requirements.

Minor Editing (21 hours)

Minor Requirements

1. Complete the following:
   CHum 230.
   ELang 223, 322, 325, 350, 410R.
2. Complete 3 hours of the following:
   ELang 430R.

Minor Humanities Computing (15–18 hours)

Minor Requirements

1. Complete 9 hours from the following foundation courses, including at least one course incorporating programming:
   a. Courses with programming content:
      CHum 210, 220, 222 (or C S 142), 250, 260.
   b. Other CHum course options:
      CHum 230, 240, 290R (with coordinator approval).
2. Complete 3 hours from the following advanced courses:
   CHum 310, 320, 330, 345, 355, 390R (with coordinator approval).

3. Complete 3 hours of project/integrative/capstone courses:
   CHum 450R, 489R, 490R (with coordinator approval), 496R.

   Note: A project/internship/capstone course in the student's major involving substantial computer work may also be used. See the Humanities Advisement Center.

Note: Students without basic computer literacy should take CHum 100R or 200 or C S 100 before beginning the minor.

Minor Linguistics (15 hours)

Minor Requirements

1. Complete the following courses:
   Ling 330, 450.
2. Complete 9 hours of electives from other Linguistics and English Language Department course work in consultation with a department advisor.

Minor Linguistic Computing (18 hours)

Minor Requirements

1. Complete one course from the following prerequisite courses:
   ELang 223.
   Ling 330.
2. Complete one course from the following prerequisite courses (or equivalent experience):
   CHum 200.
   C S 100.
3. Complete the following:
   CHum 220, 260.
4. Complete 9 hours from the following:
   CHum 200 (or C S 100), 355, 360, 361, 489R (3 hours), 490R (with coordinator approval), 496R.
   Ling 480, 485, 580R (with coordinator approval), 581.

   Note: If CHum 200 or C S 100 was taken in item 2 above, it will also count toward the elective hours.

Teaching English to Speakers of Other Languages (TESOL)

The Discipline

Preparation to teach English to speakers of other languages involves multidisciplinary course work in a number of areas, including linguistics, language acquisition, teaching methods and materials, educational programs, and computer-assisted instruction.

BYU offers two TESOL minors to accommodate prospective teachers with differing career goals. The first minor is designed to prepare teachers of English as a second or foreign language in general and offers students the flexibility to choose an emphasis in keeping with their professional interests. The second, TESOL K–12, focuses on teaching students of limited English proficiency who are in the public schools of the United States.

Career Opportunities

TESOL minors are qualified for many overseas positions teaching English as a foreign language. They may also work in various ESL and bilingual education programs in the United States and other English-speaking countries. Possible teaching settings range from adult education classes to special courses for immigrant school children. The TESOL K–12 minor (designed for TESOL minors who wish to teach in the public school system) has been approved by the Utah State Board of Education as leading to the Utah State ESL endorsement. Earning this endorsement will enhance the career possibilities of teachers holding an elementary or secondary state teaching credential.

Minor TESOL (18 hours)

Minor Requirements

1. Complete the following:
   ELang 223.
   Ling 441, 461, 473, 477.
2. Complete one course from the following:
   CHum 210.
   ELang 325.
3. Complete 3 hours of the following:
   Ling 496R.

Minor TESOL K–12 (19 hours)

Minor Requirements

1. Complete the following:
   FamLf 305.
   Ling 230, 440, 460, 472, 476.
2. Complete one course from the following:
   El Ed 450.
   Sc Ed 450.
3. Complete 4 credit hours in an ESL situation and/or working with limited-English-proficiency (LEP) students while enrolled in El Ed 477R, Sc Ed 476R, or 477R.

English as a Second Language (ESL)

Undergraduate Courses

301. Advanced Academic English for International Students. (3:3:1) For bilingual foreign students.
Integrated skills course for nonnative English speakers, primarily focused on academic listening, speaking, and the basic skills needed for success at an American university.

302. Advanced English Pronunciation for International Students. (3:3:0) For bilingual foreign students.
Improving the speaking ability of nonnative English students, emphasizing rhetorical and communication strategies, pronunciation, stress, rhythm, intonation, and fluency.

303. College Reading and Study Skills for International Students. (3:3:0) For bilingual foreign students.
Learning strategies to improve reading speed and to understand materials used in university classes. Should be taken during the first year (for nonnative English speakers).

304. Academic Writing for International Students. (3:3:1) For bilingual foreign students.
Learning how to write essays, reports, and research papers acceptable in an American university. Should be taken before ELang 105 or Engl 150.

404. ESL Advanced Composition. (3:3:0) For graduate ESL students.
Research and writing techniques for prethesis work.

Computers and the Humanities (CHum)

Undergraduate Courses

100R. Computing Tools for the Humanities. (0.5–1:Arr.:Arr. ea.) F
Modules introduce computer software used in humanities disciplines for teaching, research, writing, and publishing. Fundamentals of computer programming. Basics of processing text, sound, images, and video.

200. Basic Humanities Computing Skills. (3:3:0) F, W Prerequisite: word processing experience.
Software applications for computer-based instruction, academic publishing, and research; introduction to programming new applications.

210. Instructional Applications Programming 1. (3:3:0) F, W Prerequisite: CHum 100R or 200 or computer experience.
Recommended for teaching majors and minors. Applying computer technology to teaching: designing, authoring, and evaluating computer-based instructional materials for lab and classroom use.

220. Linguistic Computing Programming 1. (3:3:0) F, W Prerequisite: CHum 200 or C S 100 or equivalent experience.
Computer programming for language applications: data types, character representation, flow of control, file input/output, string manipulation.

222. Humanities Computing Programming. (3:3:0) F Prerequisite: CHum 100R or 200 or computer experience.
Introduction to fundamental principles and skills of programming; creating humanities computing applications, including program design and logic, variables, modularity and object orientation, and critical problem solving.

230. Print Publishing 1. (3:3:0) F, W Prerequisite: CHum 100R or 200 or word processing experience.
Applying computer technology to academic publishing in print media: journals, newsletters, textbooks, and other scholarly publications.

240. Databases for the Humanities. (3:3:0) Prerequisite: CHum 200 or C S 100 or equivalent experience.
Design and use of relational databases, oriented toward humanities and linguistic applications.

250. Internet Publishing. (3:3:0) F, W Prerequisite: CHum 100R or 200 or computer experience.
Applying computer technology to academic publishing in electronic media: Internet sites for classes, research projects, and academic organizations. Scripting for intelligent/dynamic Web pages.

260. Text Processing and Analysis. (3:3:0) F Prerequisite: CHum 200 or C S 100 or equivalent experience.
Applications of computer technology to research in language and literature: text processing, retrieval, and analysis tools for text corpora and online resources.

290R. Current Topics and Issues. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual or group study of current issues and developments in humanities computing. Extended readings; research or project required.

310. Instructional Applications Programming 2. (3:3:0) W Prerequisite: CHum 210.
Advanced applications of computer technology to teaching: integrating digital graphics, sound, and video; hypertext and hypermedia; computer-based testing; network applications.

330. Print Publishing 2. (3:3:0) W Prerequisite: CHum 230.
Advanced application of computer technology to academic publishing in print media: books, journals, and supporting scholarly publications.

345. Web Databases. (3:3:0) W Prerequisite: CHum 240 or 250.
Using advanced Internet applications and services to create dynamic, database-driven Web sites. Integrating database methods with Internet publishing approaches and principles. Techniques for Web-based applications like address books, discussion forums, surveys and adaptive quizzes, secure group/class sites, and user-maintained content.

355. Text Encoding and Markup. (3:3:0) W Prerequisite: CHum 250 or 260.
Principles of markup languages (SGML, XML, etc.) and encoding standards for academic content. Practical experience encoding, processing, and delivering marked-up data.

360. International Software and Text Processing. (3:3:0) W Prerequisite: CHum 220, 260.
Developing international software that can be available in English and other languages. Globalization, internationalization, localization, Unicode, fonts, multilingual user interfaces, and working with foreign language texts.

361. Speech Processing. (3:3:0) W Prerequisite: CHum 260.
Analyzing and manipulating speech data. Developing software applications that include speech recognition and/or speech generation.

390R. Current Topics and Issues. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual or group study of current issues and developments in humanities computing. Extended readings; research or project required.

450R. Internet Publishing Project. (3:Arr.:Arr. ea.) Prerequisite: CHum 345 or 355 or instructor's consent (depending on project).
Applying Internet publishing principles to a substantial development project. Students work as a group with faculty advisors/mentors.

489R. Humanities Computing Project. (1–3:Arr.:0 ea.) Prerequisite: any 300-level computers in the humanities course.
Applying principles from other courses to a substantial research or development project. Students work individually with faculty and technical advisors.

490R. Current Topics and Issues. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual or group study of current issues and developments in humanities computing. Extended readings; research or project required.

496R. Academic Internship. (1–3:0:0 ea.) Prerequisite: CHum 300-level course or equivalent experience.
On-the-job experience in publishing production (print or electronic), courseware/software development, museum/collection/textbase management, language/linguistics research, or other application of computers in the humanities.

English Language (ELang)

Undergraduate Courses

105. First-Year Writing for International Students. (3:3:0) F, W
Processes of academic writing, reading, and research for international students who have English as their second language. Fulfills GE First-Year Writing requirement.

223. Introduction to the English Language. (3:3:0)
Overview of English from linguistic point of view, emphasizing structure of English and social, biological, and psychological aspects of language.

273. Empirical Methods in English Linguistics. (3:3:0) Prerequisite: ELang 223 or concurrent enrollment.
Basic techniques for gathering and analyzing instances of English as it actually occurs across communities and throughout history.

322. Modern American Usage. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Current conventions and effective use of American English.

324. History of the English Language. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Basic changes from Old English to modern English, including modern American dialects.

325. The Grammar of English. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Study of English grammar in various applications.

326. English Semantics and Pragmatics. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Structure of meaning in words, phrases, and discourse. Lexical semantics and the mental lexicon; phrase-level meaning; interaction of situation and meaning.

327. English Phonetics and Phonology. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Pronunciation, perception, and interaction of English speech sounds. Dialect variation.

350. Basic Editing Skills. (3:3:0) Prerequisite: ELang 322, 325.
Editing theory and practice, emphasizing copy editing and basic line editing.

351R. Editing Student Journals. (1–2:0:Arr. ea.)
Hands-on training and experience in all aspects of editing and publishing student journals.

362. Discourse Analysis. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Linguistic analysis of connected speech or written discourse, especially larger linguistic units above the clause level, such as conversational exchanges or written texts.

399R. Academic Internship: Editing and English Language. (1–9:0:0 ea.)
On-the-job experience and education related to editing and English language studies.

410R. Genre and Substantive Editing. (3:3:0 ea.) Prerequisite: ELang 322, 325.
Exploring a different genre of publishing each semester; instruction in substantive editing.

421R. Studies in Language or Editing. (3:3:0 ea.) Prerequisite: ELang 223.
Topics vary.

430R. Editing for Publication. (1–3:Arr.:0 ea.) Prerequisite: ELang 350, 410R; CHum 230.
Refining copy editing and substantive editing skills through hands-on work with actual publications; one-on-one feedback and mentoring.

468. Varieties of English. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Regional and social variation in English, especially standard and nonstandard national and world Englishes such as English-based pidgins and creoles.

495R. The Senior Course. (3:3:0 ea.) Prerequisite: senior status; English language major status.
In-depth study of a limited area of English language. Content varies; requires research and writing.

500-Level Graduate Courses (available to advanced undergraduates)

521R. Studies in Language. (3:3:0 ea.) Prerequisite: ELang 324 or equivalent.
Topics vary.

522. Language Policy and Planning in English Language Contexts. (3:3:0) Prerequisite: ELang 223 or Ling 330 or equivalent.
Theories and practices of governing entities as they formulate policies relating to the status and codification of the English language.

524. History of the Book. (3:3:0)
History and development of the book, including modern methods and practices.

525. Old English 1. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Old English grammar and vocabulary; traditional syntactical patterns in various types of Old English prose and poetry.

526. Middle English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Detailed study of the principal dialects of Middle English, as illustrated in the literature of the period.

527. Early Modern English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
English language from about 1500 to 1800, with special emphasis on language of Shakespeare and the King James Bible.

528. Varieties of English. (3:3:0) Prerequisite: ELang 223, 324; or equivalents.
Regional and social variation in English, especially standard and nonstandard national and world Englishes, including English-based pidgins and creoles.

529. Structure of Modern English. (3:3:0) Prerequisite: ELang 325, or instructor's consent.
English syntax through modern grammars; theories underlying those grammars.

535. Language and Literature. (3:3:0) Prerequisite: ELang 223 or Ling 330 or equivalent.
Literature from a language perspective; applying linguistic constructs to literary language; examining literary style; linguistic analysis of unfamiliar texts.

548. Old English 2. (3:3:0) Prerequisite: ELang 525.
Additional reading in Old English, emphasizing sound changes, dialects, and textual production.

Linguistics (Ling)

Undergraduate Courses

230. Language, Mind, and the World. (3:3:0)
Broad overview of language as the medium that makes thinking, understanding, communications, and teaching possible.

299R. Academic Internship: English Language Teaching. (1–9:0:0 ea.) F, W, Sp, Su Prerequisite: Ling 377R.
Students with focused training teach specific English skills to speakers of other languages in the U.S. or abroad.

330. Introduction to Linguistics (Modern). (3:3:0)
Basic understanding of linguistic systems. Phonology, morphology, syntax, semantics, and pragmatics.

377R. Basic Training in TESOL. (1–3:Arr.:Arr. ea.) Prerequisite: planned participation in IAS- or U.S.-based English teaching experience.
Basic preparation to teach English to speakers of other languages in particular settings. Especially for international service volunteers who plan to teach ESL or EFL.

399R. Academic Internship: Linguistics. (1–9:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience and education related to linguistics.

420. Phonetics. (3:3:0) Prerequisite: Ling 330.
General inventory of speech sounds possible in language, from both an acoustic and articulatory point of view.

427. Phonology and Morphology. (3:3:0) Prerequisite: Ling 330 or ELang 223.
Introduction to phonology and morphology in the world's languages, emphasizing the analysis of English.

430. Theoretical Syntax. (3:3:0) Prerequisite: ELang 223 or Ling 330.
Theoretical comparison and contrast of different sentence types. Methods of argument to develop and critique generative theories of lexical categories, grammatical roles, and syntactic structure.

440. Understanding Language Acquisition K–12. (2:2:0) Prerequisite: ELang 223 or Ling 230; El Ed 450 or Sc Ed 450.

Processes and variables in native- and second-language development. How teachers can foster efficient acquisition of language, cognitive, and academic skills in second-language environments.

441. Language Acquisition in TESOL. (2:2:0) Prerequisite: ELang 223.

Understanding fundamental theories and processes of first and second language acquisition. How teachers can enhance language learning in English as a second or foreign language.

450. Introduction to Historical-Comparative Linguistics. (3:3:0) Prerequisite: Ling 330 or ELang 223.

Theory and method of language change via comparison of daughter languages and reconstruction of their ancestral language: phonological, morphological, semantic, and lexical.

460. Assessment for Linguistically Diverse Students K–12. (2:2:0) Prerequisite: ELang 223 or Ling 230; El Ed 450 or Sc Ed 450.

Fundamental concepts in testing, use/interpretation of current instruments for language/academic assessment, appropriate placement of linguistically diverse students, and developing classroom language assessments.

461. Language Assessment in TESOL. (2:2:0) Prerequisite: ELang 223.

Understanding key issues in language testing, writing good language tests and test items, and completing basic test and item analyses.

472. Developing Second-Language Literacy K–12. (2:2:0.5) Prerequisite: ELang 223 or Ling 230; El Ed 450 or Sc Ed 450.

Instructional strategies, methodologies, and materials for developing reading and writing skills in a second language. Developing cognitive academic language proficiency and integrating multiple cultural perspectives.

473. Literacy Development in TESOL. (2:2:0.5) Prerequisite: ELang 223.

Understanding basic processes of literacy development in English as a second or foreign language. How knowledge of these processes informs classroom literacy instruction and practices.

476. Integrating Content and Language Instruction K–12. (2:2:0.5) Prerequisite: ELang 223 or Ling 230; El Ed 450 or Sc Ed 450.

Instructional methods, strategies, and materials for integrating curriculum content and language instruction. Teaching, creating, and adapting lesson materials in a multicultural context.

477. Methods and Strategies in TESOL. (3:3:0.5) Prerequisite: ELang 223.

Instructional methods and strategies for teaching English as a second or foreign language. Overview of curriculum development for teaching listening, speaking, reading, and writing.

478. Language Teaching Methods: MTC. (3:3:0) Prerequisite: ELang 223.

Instructional methods and strategies for teaching second and foreign languages at the Missionary Training Center (MTC).

480. Problems in Translation. (3:3:0) Prerequisite: proficiency in a second language.

History, theory, and practice of human and machine translation.

485. Corpus Linguistics. (3:3:0) Prerequisite: Ling 330, ELang 223 or 273.

Using large collections of texts for teaching and particularly for research, including many types of linguistic variation.

490. Senior Seminar. (2:2:0)Prerequisite: Ling 330.

Reading and discussing major issues in linguistics.

496R. Academic Internship: TESOL. (1–9:0:0 ea.) Prerequisite: ELang 223, Ling 441; Ling 473 or 477.

Individualized work or volunteer experience in a domestic or international setting. International internships must be coordinated through Study Abroad. All internships require prior departmental approval.

500-Level Graduate Courses (available to advanced undergraduates)

500. Introduction to Research in TESOL. (3:3:0) Prerequisite: admission to TESOL graduate certificate or language acquisition MA program.

Research questions in language teaching and learning, literature review, research design, data collection, and interpretation. Understanding research methods as used in others' studies.

521. Phonology. (3:3:0) Prerequisite: Ling 330.

Distinctive values of speech sounds: their function in the communicative process. Analysis of phonological data via postulation of underlying forms and derivational rules.

535. Semantics. (3:3:0) Prerequisite: Ling 330.

Theory and practice of semantic analysis with special emphasis on Jakobsonian and Peircean semiotics.

540. Language Acquisition. (3:3:0) Prerequisite: Ling 330 or equivalent.

First- and second-language acquisition viewed in light of psycholinguistics and sociolinguistics.

545. Psycholinguistics. (3:3:0) Prerequisite: ELang 223 or Ling 330 or equivalent.

How the mind interprets, stores, retrieves, and produces language. Anatomical structures and physiological processes of the brain dealing with language.

550. (Ling-Anthr) Sociolinguistics. (3:3:0)

Research and theory in anthropological linguistics and sociolinguistics.

551. (Ling-Anthr) Anthropological Linguistics. (3:3:0)

Language in culture and society: development, typology, and description.

555. Teaching Culture. (3:3:0)

What culture is, how it affects language learners and teachers, and development of U.S. lifestyle patterns.

558. Historical-Comparative Linguistics. (3:3:0) Prerequisite: Ling 450 or equivalent.

Learning theory and method of language change via comparing daughter languages and reconstructing ancestral languages. Language universals and typology.

577. TESOL Methods and Materials. (4:4:1) Prerequisite: ESL 404 or native English speaker.

Foundation course surveying concepts, procedures, and techniques in second/foreign language teaching methodology and materials selection. Includes observing actual classes and participating in a mentored teaching practicum.

579. TESOL Student Teaching. (3:0:8) Prerequisite: Ling 577 and departmental consent.

Sustained and supervised practice teaching at the English Language Center.

580R. Problems in Linguistics and Applied Linguistics. (1–3:3:0 ea.) On dem.

Advanced research in language acquisition, sociolinguistics, psycholinguistics, linguistics field study, applied linguistics.

581. Natural Language Processing. (3:3:0) Prerequisite: good programming skills in at least one language (preferably LISP, Prolog, C, C++, Perl, or Java) and a knowledge of basic, discrete math. Upper-division linguistics/computers and the humanities students with less programming experience may enroll with instructor's consent.

Intensive overview of natural language processing, including computational techniques, hands-on experience with linguistic technologies and corpora, language modeling approaches, and readings from current research.

590R. Readings in Linguistics. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.

Individual study of current linguistic literature. Occasional discussion sessions with instructor and other class members. Pass/fail grade only.

595. Research Design in TESOL. (1:2:0) Prerequisite: Ling 500; admission to TESOL MA (thesis option) or language acquisition MA program; preliminary draft of rationale and review of literature for MA thesis.

Research design options for examining language acquisition and teaching. Designing research and writing the third chapter of the MA thesis. Students may enroll concurrently for up to 2 hours of Ling 699R (thesis) credit.

596. Research Design in Linguistics. (1:2:0) Prerequisite: admission to linguistics MA program.

Research options in linguistics. Selecting thesis topic and writing first chapters of MA thesis. Students may enroll concurrently for up to 2 hours of Ling 699R (thesis) credit.

599R. Academic Internship: Linguistics. (1–9:9:0 ea.) On dem.

On-the-job experience under faculty supervision, with department approval.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

American Sign Language (ASL)

Undergraduate Courses

(Available only through Evening Classes.)

101, 102. Conversation ASL, Parts 1 and 2. (4:4:1 ea.)

Basic ASL skills, both receptive and expressive. Basic conversation skill, emphasizing vocabulary building and pragmatics. Introduction to deafness and ASL.

201. ASL Grammar. (4:4:0)

Basic study of ASL structure and syntax. Beginning transcription.

202. Advanced ASL Grammar. (4:4:0) W even yr. Prerequisite: ASL 201.

Advanced ASL structure, including conversational skills.

301. Deaf Culture. (3:3:0)

Society and culture of the deaf community. Required course for obtaining language credit by examination.

302. Deaf Literature. (3:3:0) Prerequisite: ASL 301.

Various genres of deaf literature. Introduction to analysis of ASL literary works.

431. Interpreting 1. (4:4:1) Independent Study also.

Building basic interpreting skills. Code of Ethics, interpreting protocol, and interpreting issues.

432. Interpreting 2. (4:4:1)

Various interpreting models; the interpreting process; building and applying interpreting skills.

Linguistics and English Language Faculty

Professors

Anderson, Neil J. (1997) BA, MA, Brigham Young U., 1979, 1980; PhD, U. of Texas, Austin, 1989.

Clifford, Ray T. (2004) BA, MA, Brigham Young U., 1968, 1970; PhD, U. of Minnesota, 1977.

Davies, Mark (2003) BA, MA, Brigham Young U., 1986, 1989; PhD, U. of Texas, Austin, 1992.

Eggington, William G. (1988) BA, Brigham Young U.—Hawaii, 1975; MA, PhD, U. of Southern California, 1981, 1985.

Henrichsen, Lynn E. (1992) BA, MA, Brigham Young U.1973, 1975; EdD, U. of Hawaii, Manoa, 1987.

Manning, Alan D. (1994) BA, Brigham Young U., 1984; PhD, Louisiana State U., 1988.

Melby, Alan K. (1977) BS, MA, PhD, Brigham Young U., 1973, 1974, 1976.

Robertson, John S. (1977) BA, MA, Brigham Young U., 1967, 1970; PhD, Harvard U., 1976.

Skousen, Royal (1979) BA, Brigham Young U., 1969; MA, PhD, U. of Illinois, 1971, 1972.

Teaching Professor

Thorne, Melvin J. (2000) BA, Brigham Young U., 1976; MA, PhD, U. of Kansas, 1980, 1986.

Associate Professors

Chapman, Donald W. (1995) BS, MA, Brigham Young U., 1987, 1990; PhD, U. of Toronto, Canada, 1995.

Eddington, David (2003) BA, MA, Brigham Young U., 1986, 1989; PhD, U. of Texas, Austin, 1993.

Graham, Charles Ray (1980) BA, MA, Brigham Young U., 1967, 1969; PhD, U. of Texas, Austin, 1977.

Hallen, Cynthia L. (1991) BA, MA, Brigham Young U., 1980, 1982; PhD, U. of Arizona, 1991.

Lonsdale, Deryle W. (1997) BSc, U. of Alberta, Canada, 1981; MS, PhD, Carnegie Mellon U., 1992, 1997.

Oaks, Dallin D. (1990) BA, Brigham Young U., 1984; MA, U. of Utah, 1986; PhD, Purdue U., 1990.

Associate Teaching Professors

Dant, Doris R. (1989) BA, MA, Brigham Young U., 1966, 1972.

Gardner, Marvin K. (2005) BA, MA, Brigham Young U., 1976, 1977.

Strong-Krause, Diane (1979) BA, MA, PhD, Brigham Young U., 1975, 1976, 2001.

Assistant Professors

Baker, Wendy (2003) BA, MA, Brigham Young U., 1991, 1995; PhD, U. of Illinois, 2002.

Elzinga, Dirk (2001) BA, MA, U. of Utah, 1992, 1993; PhD, U. of Arizona, 1999.

Evans, Norman W. (2006) BA, MA, Brigham Young U., 1979, 1981; EdD, U. of Southern California, 2001.

Gardner, Dee (1999) BA, MA, Brigham Young U., 1983, 1994; PhD, Northern Arizona U., 1999.

Shelley, Monte (1976) BS, Brigham Young U., 1973; MA, U. of Wisconsin, Madison, 1975; PhD, Brigham Young U., 1976.

Tanner, Mark W. (1993) BA, U. of Utah, 1982; MA, U. of Southern California, 1985; PhD, U. of Pennsylvania, 1991.

Special Instructors

Dodge, Inna (2006) BA, MA, Brigham Young U., 1999, 2006.

McCollum, Robb (2006) BA, MA, Brigham Young U., 2004, 2006.

McMurry, Ben (2006) BA, MA, Brigham Young U., 2003, 2005.

Tarawhiti, Nancy W. (2005) BS, Brigham Young U.—Hawaii, 1990; MA, Brigham Young U., 2005.

Thompson, Carrie A. (2005) BA, MA, Brigham Young U., 2001, 2005.

Emeriti

Adams, Linda H. (1979) BA, MA, Brigham Young U., 1963, 1968.

Blair, Robert W. (1959) BA, MA, Brigham Young U., 1955, 1957; PhD, Indiana U., Bloomington, 1964.

Brown, Cheryl (1975) BA, MA, Utah State U., 1967, 1971; TESL Cert., Brigham Young U., 1974; PhD, U. of California, Los Angeles, 1983.
Cox, Soren F. (1955) BA, MA, Brigham Young U., 1952, 1956; PhD, U. of Minnesota, Minneapolis, 1964.
Luthy, Melvin J. (1971) BS, Utah State U., 1962; PhD, Indiana U., Bloomington, 1967.
Norton, Don E. (1967) BA, MA, Brigham Young U., 1959, 1961.
Probst, Glen W. (1980) BA, MA, Brigham Young U., 1961, 1966; PhD, Ohio State U., 1969.

Associate Linguists

The following are linguists in other departments who frequently teach linguistics courses in their own department or in the Department of Linguistics and English Language and who also serve on graduate and other committees for the department.

Asay, Devin (Humanities Research Center)
Belnap, R. Kirk (Asian and Near Eastern Languages)
Bourgerie, Dana (Asian and Near Eastern Languages)
Brown, Tony (Germanic and Slavic Languages)
Bush, Charles D. (Humanities Research Center)
Christensen, Matthew (Asian and Near Eastern Languages)
Clegg, J. Halvor (Spanish and Portuguese)
Fails, Willis (Spanish and Portuguese)
Hart, David Kay (Germanic and Slavic Languages)
Hendricks, Harold (Humanities Research Center)
Larson, Jerry W. (Humanities Research Center)
Lund, Randall J. (Germanic and Slavic Languages)
Meredith, R. Alan (Spanish and Portuguese)
Parkinson, Dilworth B. (Asian and Near Eastern Languages)
Preto-Bay, Ana (Spanish and Portuguese)
Russell, Robert A. (Asian and Near Eastern Languages)
Smith, Laura Catharine (Germanic and Slavic Languages)
Smith, Melvin R. (Humanities Research Center)
Turley, Jeffrey S. (Spanish and Portuguese)
Warnick, Paul (Asian and Near Eastern Languages)
Watabe, Masakazu (Asian and Near Eastern Languages)

Lithuanian

See See Germanic and Slavic Languages.

Malay

See Center for Language Studies.

Malagasy

See Center for Language Studies.

Marriott School of Management

Dean: Ned C. Hill
730 TNRB, (801) 422-4121

Associate Dean: W. Steve Albrecht
730 TNRB, (801) 422-3154

Associate Dean: Michael Thompson
730 TNRB, (801) 422-2794

Undergraduate Director: Joan Young
460 TNRB, (801) 422-2435

Marriott School of Management Advisement Center
460 TNRB, (801) 422-4285

Admission to Degree Program

The degree programs in the Marriott School of Management carry special enrollment limitations. Please see the advisement center for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Management	
	Emphases:	
		General Business
		Entrepreneurship
		Finance
		Global Supply Chain Management
		Marketing Management
		Organizational Behavior/HR Management
		Strategy
Minors	Management	
	Strategy	
Cert	Global Management	
	Retailing	
	Sales	

For information on accounting or information systems degrees, see School of Accountancy or Department of Information Systems.

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MAcc	Professional Accountancy
MAcc	Tax
MBA	Business Administration
MISM	Information Systems Management
MPA	Public Administration

Individual program brochures are available from the Marriott School of Management, 730 TNRB, Brigham Young University, Provo, UT 84602-3113. Also, refer to the BYU 2007–2008 Graduate Catalog.

The Discipline

Courses are designed to create opportunities for students to develop and apply their analytical and decision-making abilities. For this reason, the Marriott School programs make extensive use of faculty expertise, case studies, student projects, and internships.

Career Opportunities

Specific job descriptions are many and varied. Some examples are: banker, consultant, financial analyst, credit analyst, real estate developer, financial planner, human resource specialist, employee benefit specialist, personnel officer, business systems consultant/analyst, sales representative, account executive, research specialist, marketing analyst, management trainee, buyer, merchandiser, production manager, technical sales person, inventory manager, logistics manager, materials supervisor.

General Information

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Students are encouraged to apply to the Marriott School of Management during their sophomore year, as soon as they have completed the pre-management core courses.

Because of controlled enrollments in management programs, the competition for acceptance is keen. Those choosing to enter these majors should decide early, plan their schedules carefully, be aware of all the requirements, and stay informed about any changes by checking often with the Marriott School of Management Advisement Center.

Students interested in management as a major must make application for the management major. A separate application to the School of Accountancy or Department of Information Systems is necessary for those seeking an accounting or information systems major. Students not accepted into the program should work closely with advisement personnel to select a new major outside the Marriott School.

Requirements for application are:

1. Cumulative GPA must be at least 3.0 in the pre-management courses, with no more than one repeat for each class. No grade lower than a C– will be acceptable.

   Not every student meeting the minimum requirements is guaranteed acceptance into the undergraduate program.
2. Demonstrate a knowledge of computer skills, including PowerPoint and spreadsheet analysis.

   Students may demonstrate PowerPoint and spreadsheet skills with either a minimum grade of B in an equivalent transfer course or a P grade in I Sys 100 and 101.

Major Requirements for All Management Emphases

1. No more than 12 semester hours of upper-division transfer credit will be accepted toward the major and only 6 hours beyond the Integrated Management Core. No transfer courses will be accepted for the Integrated Management Core courses.
2. Only courses sufficient for a single emphasis are permitted.
3. Complete the following Premanagement Core courses:
   Acc 200.
   Econ 110.
   I Sys 100, 101.
   Math 119.
   Stat 221.

   Note: Premanagement Core courses must be completed or in concurrent process of being completed before a student enrolls in Management Core 1 courses.

   Note: Before registering for Management Core 1 courses, students must complete and submit the "continuance" form to the college advisement center. Based on student performance to date, permission may be granted to take some restricted major-only Management Core 1 courses.
4. Apply and be formally accepted into the program.
5. Complete the following Management Core 1 courses:
   Acc 210.
   Bus M 301, 320, 321.
   I Sys 201.
   M Com 320.

   Note: Management Core 1 courses must be completed or in concurrent process of being completed before a student enrolls in the Integrated Management Core.
6. Complete the following Integrated Management Core courses:
   Bus M 341, 361, 390.
   Org B 321.
   And complete one course from the following:
   ManEc 300, 358, 376, 387.
7. Complete the following additional courses:
   Acc 241.
   And complete one course from the following:
   Bus M 371R, 380, 382, 384.
   And complete one course from the following:
   ManEc 301, 453.
8. Complete the following after Bus M 301 has been completed:
   Bus M 498.
9. Complete the requirements for *one* emphasis from those listed below.
10. Complete Marriott School exit survey online.

BS Management: General Business Emphasis

(63–64 hours*)

The general business, or open, emphasis is available to students wishing to design their own program to meet specific goals such as working in a family business or preparing for a graduate program.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete four Marriott School 300- and 400-level major courses that meet specific student needs.

*Hours include courses that may fulfill university core requirements.

BS Management: Entrepreneurship Emphasis

(66–67 hours*)

The entrepreneurship emphasis is designed to acquaint students with the problems commonly encountered when starting, growing, and harvesting business ventures. Emphasis is on the entrepreneurial career and perspective, not on one-shot ventures.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following emphasis courses:
   Bus M 472, 475, 479.

   Note: Bus M 472 and 475 must be completed before taking 479.
3. Complete two courses from the following:
   Bus M 454, 462, 538.

*Hours include courses that may fulfill university core requirements.

BS Management: Finance Emphasis (66–67 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.

   Note: Finance students are to select ManEc 453 in item 7 of the major requirements listed above to fill that requirement and item 2 below.

2. Complete the following finance junior core courses within the same semester:
   Acc 440.
   Bus M 401, 410.
   ManEc 453.

3. Complete at least two finance elective courses from the following. Suggested options are as follows:
   Corporate Finance: Bus M 407, 432.
   Asset Management: Bus M 411, 415R (two enrollments required).
   Entreprencurial Finance: Bus M 475, 479.
   Financial Institutions: Bus M 405, 412.
   International Finance: Bus M 430, 432.
   Investment Banking: Complete two of the following courses: Bus M 411, 412, 415R (two enrollments required).
   Personal Financial Planning: Bus M 406, 418.
   Real Estate: Complete two of the following courses: Bus M 413, 414, 419.
   General Finance: Complete two electives from above except for Bus M 430 and 479.

*Hours include courses that may fulfill university core requirements.

BS Management: Global Supply Chain Management Emphasis (66–67 hours*)

Supply chain management involves the control and coordination of materials and services from the original point of origin to the final point of consumption. Increasing competitiveness through higher quality, lower cost, greater responsiveness, and unique innovation is a critical aspect of supply chain management. Likewise, managing across boundaries within the firm and throughout the channel is emphasized. Course work is designed to prepare students for managerial positions in manufacturing and service industries in the areas of purchasing, operations, logistics, customer service, and supply chain management.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following emphasis courses:
   Bus M 466, 468, 469.
3. Complete two courses from the following:
   Bus M 430, 450, 462, 463, 565.

*Hours include courses that may fulfill university core requirements.

BS Management: Marketing Management Emphasis (66–67 hours*)

The marketing emphasis is designed to prepare students for marketing management responsibilities, product/brand management, industrial and consumer products sales management, market analysis, and entrepreneurial activities both in the U.S. and in other areas of the world.

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following emphasis courses:
   Bus M 442, 459.
3. Complete three courses from the following:
   Bus M 431, 440, 441, 444, 448, 450, 454, 455, 456, 457, 458R, 463, 469, 472.

*Hours include courses that may fulfill university core requirements.

BS Management: Organizational Behavior/Human Resource Management Emphasis (66–67 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following emphasis courses:
   Org B 327, 330, 347.
3. Complete two courses from the following:
   Org B 428, 429, 431, 490R (3 hours required).
   M B A 547.

*Hours include courses that may fulfill university core requirements.

BS Management: Strategy Emphasis (63–64 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.

   Note: Strategy students do not need to take Bus M 498.

2. Complete the following:
   Bus M 480, 481, 482.
3. Complete two courses from the following:
   Bus M 401 or 475; 448, 479.

*Hours include courses that may fulfill university core requirements.

Minor Management (22 hours*)

Minor Requirements

1. D credit will be allowed in courses for the management minor, although a 2.25 GPA in minor courses is required.
2. Complete the following prerequisite courses:
   Acc 200 or 201.
   Econ 110 (or equivalent).
   Math 110 (or 112 or 119).
   Stat 221.

   Note: students should complete prerequisite courses before taking functional courses.

3. Complete the following Marriott School functional courses:
   Bus M 300, 340.
   Org B 320.
4. Complete one course from the following:
   Bus M 371R, 380, 382, 384.
5. No more than one transfer class will be accepted as a substitute for Org B 320, Bus M 300, 340.

*Hours include courses that may fulfill university core requirements.

Minor Strategy (27–28 hours*)

Minor Requirements

1. Complete one course from the following:
   Math 110, 112, 119.
2. Complete one course from the following:
   Acc 200 or 201.
3. Complete the following:
   Bus M 300, 480, 481, 482.
   Econ 110.
   ManEc 387.
   Stat 221.

Recommended Courses
Bus M 401, 479.

*Hours include courses that may fulfill university core requirements.

Certificate Global Management (12 hours*)

The global management certificate is intended to provide a theoretical and practical understanding of global business issues and enhance international career opportunities. The certificate is available to students admitted to the Marriott School of Management.

Certificate Requirements

1. Complete the following:
   Bus M 430.
2. Complete one course from the following:
   Bus M 431, 432, 465, 495R.
   Org B 551.
3. Complete the following business language course:
   Bus M 596R (available in Arabic, Chinese, English, French, German, Italian, Japanese, Korean, Portuguese, Russian, or Spanish).
4. Complete the international business experience in the form of an international internship, international field study, or business Study Abroad program.

Business Management

Michael J. Swenson, Chair
660-A TNRB, (801) 422-3088

Accessibility of Business Management Courses

1. Bus M 200-level courses are open to all students.
2. Bus M 300, 313R, 340, 371R, 372, 380, 382, 384, 430, and 456 are open to all students. All other Bus M 300-level courses are closed except to students who have been formally accepted into the Marriott School, the School of Accountancy, or the Department of Information Systems or who have written approval from the undergraduate management director.
3. Non–Marriott School students may take 400-level courses for which they have proper prerequisites and the undergraduate management director's written permission.

Business Management (Bus M)

Undergraduate Courses

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: consent of both department associate director and cooperative education coordinator; declared Marriott School major.
Supervised experience for nonbusiness students either in service or business-related work.

200. Personal Finance. (3:3:0) Independent Study also.
Practical course in money management and utilizing savings.

205R. Planning for Financial Security at Retirement. (1:1:0)
Fundamentals of good financial management necessary for successful retirement.

300. Financial Management. (3:3:0) For nonmanagement majors. Independent Study also. Prerequisite: Acc 200 or equivalent.
Emphasizes financial statement analysis, financial planning, sources of financing, working capital management, risk and return, and valuation.

301. Financial Management. (3:3:1.5) Prerequisite: Premanagement and Management cores and full acceptance into the Marriott School upper-division major.
Financial management from the viewpoint of the business manager emphasizing profitability, liquidity, and long-range financial planning.

313R. Topics in Real Estate. (2:2:0 ea.)
Selected current topics in real estate.

320. Career Orientation and Preparation. (0.5:1:0) Prerequisite: acceptance into Marriott School.
Student orientation and preparation for careers in management. Must be taken first semester in Marriott School.

321. Mentor Program. (0.5:0:0) Prerequisite: acceptance into Marriott School.
Discussions with outside mentor about career opportunities. Must be taken first semester in Marriott School.

322. Management Suite. (1:1:0) Prerequisite: acceptance into Marriott School.
Readings and ethics course combining spiritual and secular business topics.

340. Marketing Management. (3:3:0) For nonmanagement majors. Independent Study also.
Emphasizes marketing's role in society and the firm, marketing opportunities, the consumer market, and management of the marketing mix.

341. Marketing Management. (3:3:0) Prerequisite: Premanagement and Management 1 cores and full acceptance into the Marriott School upper-division major.
Market segmentation, product service, promotion, channel, pricing strategies. Marketing principles in consumer and industrial markets, profit and nonprofit organizations, domestic and international companies, and small and large firms.

361. Supply Chain, Services, and Operations Management. (3:3:0) Prerequisite: Premanagement and Management 1 cores and full acceptance into the Marriott School upper-division major.
Control and coordination of materials and services from point of origin to final point of consumption to meet customer needs efficiently.

371R. Entrepreneurship Lecture Series. (1:1:0 ea.)
Lectures by successful entrepreneurs on subjects significant to entrepreneur-type opportunities.

372. Basic Entrepreneurship Skills. (3:3:0) For non-Marriott School of Management students.
Practical aspects of business formation and growth; key skills and principles needed to successfully start up and grow a business.

373R. Entrepreneur Field Studies. (1–3:Arr.:0 ea.) F, W
Prerequisite: completion of department core courses.

380. Executive Lectures. (1:1:0)
Lectures by top executives on subjects significant to executive leadership.

382. Financial Services Lecture Series. (1:1:0)
Lectures by executives on financial services topics.

384. E-Business Lecture Series. (1:1:0)
Lectures by e-business leaders on subjects significant to e-business-type opportunities.

389R. Current Topics in Leadership. (1:15:0 ea.)
Lectures by leading experts (top executives, faculty, etc.) on current leadership topics dealing with business, organizations, communities, and families.

390. Ethics for Management. (3:3:0) Prerequisite: Management Core
Analyzing ethical dilemmas and understanding ethical theories as they apply to decision making in management.

401. Advanced Financial Management. (3:3:0) Prerequisite: Bus M 301; major status.
Capital budgeting, cost of capital, capital structure/dividends, mergers and acquisitions, and current financial problems.

402. Managerial Finance. (3:3:0) Prerequisite: accounting junior core; major status.
Overview of financial management issues including capital budgeting, cost of capital, capital structure/dividends, and long-term financial planning.

405. Management of Financial Institutions. (3:3:0) Prerequisite: Bus M 301; major status.
Management problems of commercial banks and nonbank financial institutions, emphasizing balance sheet management, regulation, and the process of intermediation.

406. Insurance and Financial Services Academy. (3:3:0) Prerequisite: major status, Bus M 301.
The process of identifying, measuring, and dealing with personal risk. Introduction to property/casualty as well as life and health insurance issues and products.

407. Risk Management. (3:3:0) F, W Prerequisite: Bus M 301; major status.
Management of risk exposures in a business setting. The process of identifying, measuring, and dealing with risk. Coverage includes both traditional insurable risks and financial risks.

410. Investments. (3:3:0) Prerequisite: Bus M 301; major status.
Security markets, security analysis, and portfolio management.

411. Advanced Investments. (3:3:0) Prerequisite: Bus M 301, 410; major status.
Current investment literature, efficient markets, modern portfolio theory, capital assets pricing, options pricing theory.

412. Investments Academy. (3:3:0) F Prerequisite: Bus M 301; major status.
Applying financial principles to practical investment problems; insights into the investment banking profession.

413. Real Estate Finance and Investment. (3:3:0) F, W Prerequisite: Bus M 301; major status.
Terminology, concepts, principles, and analytical techniques related to financing of and investment in real estate.

414. Real Estate Development. (3:3:0) F Prerequisite: major status, Bus M 301.
Applying financial and real estate principles to practical property investments; insights into the real estate profession.

415R. Portfolio Management. (1.5:Arr.:Arr. ea.) F, W Prerequisite: Bus M 401, 410, Acc 440, ManEc 453; by application only.
Team management of actual investment portfolio for a full school year. Responsibility for economic forecasts, security selection, and portfolio strategy.

418. Financial Planning. (3:3:0) Prerequisite: Bus M 301; major status.
Applying financial principles to household decision making, stressing integration between areas. Income tax and estate planning, retirement, investments, portfolio management, and risk management.

419. Advanced Real Estate Analysis. (3:3:0) F, W Prerequisite: Bus M 413; finance junior core.
Real estate financial investment and valuation analysis incorporating contemporary case studies; advanced analytical techniques, including simulation analysis and advanced valuation and portfolio analysis.

430. Introduction to International Business. (3:3:0)
Complexities confronting U.S. firms and their management in international environments. Emphasizes functional and planning areas, including organization, market research, financial analysis.

431. International Marketing. (3:3:0) Prerequisite: Bus M 341, 430; major status.
International market entry strategies, export marketing, joint ventures, and other market entry modes. Regional/National markets; cultural, political, legal environments. Negotiations, trade financing, marketing mix.

432. International Corporate Finance. (3:3:0) Prerequisite: Bus M 301, 430; major status.
Financial aspects of multinational corporations operating within an international environment; direct foreign investment, foreign exchange regulations, capital markets, etc.

440. Database Marketing: Mining and Analysis. (3:3:0) Prerequisite: Bus M 341; major status.
Key issues in managing and developing online marketing databases for segmenting markets and developing marketing tactics. In-depth development of data mining techniques and advanced statistical analysis.

441. High-Tech Marketing. (3:3:0) Prerequisite: Bus M 341; major status.
Strategies in managing high-tech products and services, including the role of promotion, target selection, pricing, product development, and connecting to customers.

442. Marketing Research. (3:3:0) Prerequisite: Bus M 341; major status.
Concepts and methodology for conducting marketing research. Emphasis on solving problems faced by the marketing manager. Consulting research project required.

444. Consumer Behavior. (3:3:0) Prerequisite: Bus M 341; major status.
Mental and emotional processes and physical actions that people engage in when selecting, purchasing, using, and discarding products and services to satisfy consumer needs and desires.

448. Competitive Intelligence. (3:3:0) Prerequisite: major status.
Overview of the intelligence process including information collection, intelligence analysis, dissemination, ethics, and establishing the process from a managerial perspective.

450. International Negotiations. (3:3:0) W Prerequisite: major status.
Developing an effective negotiation framework for cross-national/cultural negotiation techniques relative to business and other life situations.

454. Professional Selling and Sales Management. (3:3:0) Prerequisite: Bus M 341; major status.
Concepts of professional selling and sales management including personal selling skills; strategic role of personal selling; organizing, directing, controlling, and evaluating the sales force.

455. Promotion Management. (3:3:0) Prerequisite: Bus M 341; major status.
Strategies in promoting business and nonbusiness products, services, and institutions, including the role of promotion, target selection, media and copy decisions, and marketing research.

456. Retailing Management. (3:3:0) Prerequisite: Bus M 341 (340 for nonmajors).
Selection, location, and management of retail stores and systems, emphasizing profitability and integration of accounting, finance, and economic concepts and tools.

457. Internet Marketing of Products and Services. (3:3:0) Prerequisite: major status.
Integrates product, research, sales, and promotional strategy and concepts into an overall marketing plan for developing an Internet business. Term project developing an Internet business required.

458R. Seminar in Marketing Management. (3:3:0 ea.) Prerequisite: Bus M 340 or 341.
Selected marketing issues, quantitative techniques and forecasting, advertising management, and industrial management.

459. Marketing Strategy. (3:3:0) Prerequisite: Bus M 301, 341, 442; major status.
Integration of finance, marketing, and case studies in economic concepts and techniques in marketing decision making and planning.

461. Operations Analysis and Problem Solving. (3:3:0) Prerequisite: Bus M 361; major status.
Methods and tools necessary for analyzing and solving problems associated with operations, services, and supply chain management.

462. Services Management. (3:3:0) Prerequisite: introductory operations management course or instructor's consent; major status.
Management principles and characteristics of service industries and service aspects of supply chains: sources of strategic advantage; process analysis and tools; quality.

463. Quality Management. (3:3:0) Prerequisite: Bus M 361; major status.
Concepts of quality management, strategic issues, philosophies, and tools used to implement and control quality.

464. Integrated Product Development. (3:3:0) Prerequisite: major status.
Strategies, processes, tools, and methods in product and process development, emphasizing initial stages of market and competitive assessment to concept development.

466. Purchasing and Supply Management. (3:3:0) Prerequisite: Bus M 361; major status.
Focuses on upstream supply chain activities of supplier selection, management, and development. Negotiation, costing, product development, and commodity analysis.

468. Supply Chain Logistics. (3:3:0) Prerequisite: Bus M 361; major status.
Integration of materials management (inbound transportation), physical distribution (outbound transportation), inventory, warehousing, facility location, customer service, packaging, and materials handling.

469. Integrated Supply Chain Management. (3:3:0) Prerequisite: major status.
Integrative and creative problem solving in designing and managing cohesive value-added conversion/transformation systems.

471. Entrepreneurial Perspective. (3:3:0) Prerequisite: major status.
Living case study contrasting entrepreneurial with managerial perspective. Topics include making entrepreneurial vision a reality, ethics/integrity, startups/acquisitions, spouse/children, associates, professionals, dealmaking, entrepreneurship myths.

472. Entrepreneurial Marketing. (3:3:0) F, W
Marketing strategies for start-up companies. Topics include marketing to investors, internal marketing, and how to market products/services without a marketing budget.

475. Financing New Ventures. (3:3:0) Prerequisite: Bus M 301, 341, 361, Org B 321; major status.
Concepts and skills of entrepreneurship, emphasizing how new and emerging companies are financed. Applying functional tools to case situations.

478. E-Business Technology and Entrepreneurship. (3:3:0) Prerequisite: major status.
Key issues and problems facing managers in start-up e-business and IT companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting IT businesses.

479. (Bus M-Mfg) Creating and Managing New Ventures. (3:3:0) Prerequisite: for management majors: Bus M 301, 341, 361; major status. For engineering and technology majors: management minor status; senior status.
Key issues and problems facing managers in start-up companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting businesses.

480. Strategy 1. (3:3:0) W Prerequisite: Acc 200, Math 110, Econ 110, Stat 221.
Structured problem solving, strategic thinking, and basic strategy concepts to prepare students to analyze and understand the sources of competitive advantage and superior firm performance.

481. Strategy 2. (3:3:0) W Prerequisite: Acc 200, Math 110, Econ 110, Stat 211.
Advanced strategy topics such as growth and diversification strategy, pricing strategy, game theory and competitor analysis, strategy as real options, and strategic flexibility and commitment.

482. Strategy Implementation. (3:3:0) W Prerequisite: Acc 200, Math 110, Econ 110, Stat 221.
Integrative course on strategy formulation and implementation, including a field study. Topics include organizational alignment (structure and processes that fit the strategy), change management, and strategic leadership.

488. Agribusiness Management 1. (3:3:0) Prerequisite: Acc 200, Econ 110; Bus M 300 or 340 or concurrent enrollment.
Concepts, tools, and approaches to understanding competitive forces and the development of sustainable competitive advantage for firms in the food, fiber, and horticulture industries.

489. Agribusiness Management 2. (3:3:0) Prerequisite: Acc 200 (or equivalent), Econ 110 (or equivalent), Bus M 340.
Developing and implementing marketing plans and programs for companies participating in the value chain of agribusiness industries.

490R. Topics in Business Management. (0.5–3:Arr.:0 ea.)
Current business-related topics varying by semester and section.

495R. E-Business Projects. (3:3:0) Prerequisite: instructor's consent.
Consulting/Field studies projects in e-business.

496R. Academic Internship. (1–3:Arr.:Arr. ea.)
Supervised experience for business majors either in service or business-related work. Opportunity to link learning with practical field applications.

498. Strategic Management. (3:3:0) F, W, Sp, Su Prerequisite: Bus M 301; major status.
Concepts, tools, and approaches to understand competitive forces and to systematically and consistently develop sustainable competitive advantages.

500-Level Graduate Courses (available to advanced undergraduates)

538. Managing Entrepreneurial Firms and Family Businesses. (3:3:0)
Issues and problems facing managers of entrepreneurial enterprises and leaders of family-owned businesses. Includes start-up growth, and exit strategies. Consulting project required.

565. Global Supply Chain. (3:3:0) F
The emerging rules of a global marketplace and their influence on key supply chain activities and processes.

571. Entrepreneurial Perspective. (3:3:0) F
Developing awareness of and ability to apply existing knowledge about entrepreneurship to make better decisions when starting, growing, and harvesting business ventures.

596R. Business Language. (3:3:0)
For experienced speakers of the language being taught. Emphasizes business concepts; practice and case study including conversing, reading, and presenting, while enriching business vocabulary.

Business Management Faculty

Professors

Bryson, Phillip J. (1983) BA, U. of Utah, 1964; PhD, Ohio State U., 1967.
Fawcett, Stanley E. (1996) BS, MBA, MA, Brigham Young U., 1985, 1987, 1988; PhD, Arizona State U., 1990.
Geurts, Michael D. (1975) BS, MBA, U. of Utah, 1963, 1965; PhD, U. of Oregon, 1972.
Giauque, William C. (1977) MBA, DBA, Harvard U., 1968, 1972; BS, California Inst. of Technology, 1963.
Heaton, Hal B. (1982) BS, MBA, Brigham Young U., 1975, 1977; MA, PhD, Stanford U., 1978, 1982.
Hill, Ned C. (1987) BS, U. of Utah, 1969; MS, PhD, Cornell U., 1971, 1976.
Longmore, Dean (2001) BS, Brigham Young U., 1967; MBA, U. of Utah, 1968; PhD, U. of Missouri, Columbia, 1980.
McQueen, Grant R. (1989) BA, MBA, Brigham Young U., 1981, 1984; PhD, U. of Washington, 1989.
Nadauld, Stephen D. (1976) BA, Brigham Young U., 1967; MBA, Harvard Business School, 1969; PhD, U. of California, Berkeley, 1978.
Pinegar, J. Michael (1988) BA, Brigham Young U., 1973; MBA, PhD, U. of Utah, 1979, 1982.
Rhoads, Gary K. (1992) BS, MBA, Idaho State U., 1978, 1982; PhD, Texas Tech. U., 1988.
Smith, Scott M. (1981) BS, Brigham Young U., 1971; MBA, Michigan State U., 1973; PhD, Pennsylvania State U., 1979.
Stone, Bernell K. (1986) BS, Duke U., 1964; MS, U. of Wisconsin, 1966; PhD, Massachusetts Inst. of Technology, 1968.
Swenson, Michael J. (1989) BS, Brigham Young U., 1980; MBA, U. of Utah, 1981; PhD, U. of Oregon, 1989.
Thorley, Steven R. (1991) BS, MBA, Brigham Young U., 1979, 1982; PhD, U. of Washington, 1991.
Whitlark, David B. (1989) BA, U. of Utah, 1978; MBA, Cornell U., 1985; PhD, U. of Virginia, 1988.
Wilson, Brent D. (1982) BA, Weber State Coll., 1969; MBA, Northwestern U., 1971; DBA, Harvard U., 1979.

Associate Professors

Brau, James (1999) BS, U.S. Military Academy, West Point, 1991; PhD, Florida State U., 1999.
Crawford, Robert G. (1972) BA, Brigham Young U., 1967; MS, PhD, Carnegie-Mellon U., 1971, 1975.
Dishman, Paul (2001) BFA, Trinity U., 1977; MBA, PhD, U. of North Texas, 1987, 1992.
Foster, S. Thomas, Jr. (2005) BA, Brigham Young U., 1984; MBA, U. of Missouri, 1989; PhD, U. of Missouri, Columbia, 1993.
Holmes, Andrew L. (1996) BBA, MS, Texas A&M U., 1986, 1988; PhD, U. of Houston, 1992.
Koller, Roland H. (1976) BS, U. of Utah, 1962; MA, PhD, U. of Wisconsin, 1968, 1969.
Merrill, Craig B. (1993) BA, Brigham Young U., 1989; MA, PhD, U. of Pennsylvania, 1992, 1994.
Mitton, Todd V. (2000) BA, MBA, Brigham Young U., 1990, 1993; PhD, Massachusetts Inst. of Tech., 2000.
Money, R. Bruce (2004) BA, Brigham Young U., 1983; MBA, Harvard, 1988; PhD, U. of California, Irvine, 1995.
Nelson, Ray D. (1985) BA, Brigham Young U., 1975; MA, PhD, U. of California, Berkeley, 1979, 1981.
Sampson, Scott E. (1996) BA, Brigham Young U., 1988; MBA, PhD, U. of Virginia, 1991, 1993.
Sawaya, William J., Jr. (1978) BS, U. of Wyoming, 1967; MS, PhD, Arizona State U., 1969, 1971.
Slade, Barrett A. (2000) BS, MS, Brigham Young U., 1983, 1989; PhD, U. of Georgia, 1997.
Sudweeks, Bryan L. (2000) BA, MBA, Brigham Young U., 1980, 1982; PhD, George Washington U., 1987.
Vorkink, Keith P. (2000) BA, Brigham Young U., 1994; MA, PhD, U. of Rochester, 1997, 2000.

Assistant Professors

Allred, Chad R. (2002) BS, MBA, Brigham Young U., 1985, 1987; PhD, Purdue U., 2002.
Bone, Sterling A. (2006) BS, MBA, Utah State U., 2000, 2001; PhD, Oklahoma State U., 2006.
Boyer, Brian (2004) BA, Brigham Young U., 1996; PhD, U. of Michigan, 2004.
Christensen, Glenn L. (2002) BA, MBA, Brigham Young U., 1994, 1997; PhD, Pennsylvania State U., 2002.
Couch, Robert (2005) BA, BS, Brigham Young U., 1997; MS, PhD, Carnegie Mellon U., 2000, 2004.
DeRosia, Eric D. (2002) BS, Brigham Young U., 1994; PhD, U. of Michigan Business School, 2002.
Wallin, Cynthia (2006) BS, MBA, Brigham Young U., 1989, 1994; PhD, Arizona State U., 2006.

Associate Teaching Professors

Daniels, Lee (2005) BS, Brigham Young U., 1981; MA, Sophia U., 1990.
Gibson, Stephen W. (2001) BS, Brigham Young U., 1973.
Lindorf, Ronald S. (2005) BS, MA, Brigham Young U., 1982, 1991.
Williams, Gary (2000) BA, Brigham Young U., 1973; MBA, Arizona State U., 1974.

Emeriti

Andrus, Roman R. (1976) BS, Brigham Young U., 1958; MS, PhD, Columbia U., 1959, 1965.
Barnes, Howard W. (1964) AB, Harvard Coll., 1955; MBA, U. of Southern California, 1963; Dr rer pol, Technische Universität Braunschweig, Federal Republic of Germany, 1968.
Blood, Dwight M. (1980) BS, U. of Wyoming, 1953; MS, Montana State U., 1955; MA, PhD, U. of Michigan, 1958, 1963.
Call, Ivan T. (1963) BS, Brigham Young U., 1958; MBA, DBA, Indiana U., Bloomington, 1959, 1969.
Clarke, Darral G. (1985) BS, U. of Utah, 1965; MS, Ohio State U., 1967; PhD, Purdue U., 1972.
Cox, Charles M. (1965) BS, Brigham Young U., 1955; MBA, Harvard U., 1961; PhD, U. of Washington, 1978.
Daines, Robert H. (1959) BS, Utah State U., 1956; MBA, Stanford U., 1959; DBA, Indiana U., Bloomington, 1966.
Davies, J. Kenneth (1953) BS, Marquette U., 1945; MS, Brigham Young U., 1950; PhD, U. of Southern California, 1960.
Hunt, H. Keith (1975) BS, MBA, U. of Utah, 1961, 1962; PhD, Northwestern U., 1972.
Lambert, William R. (1962) BS, U. of Utah, 1953; MBA, Harvard U., 1962; DBA, Indiana U., Bloomington, 1968.
Lee, Terry Nels (1970) BS, U. of Utah, 1963; MBA, Brigham Young U., 1966; PhD, U. of Washington, 1973.
McKinnon, Gary F. (1969) BS, MBA, U. of Utah, 1962, 1963; PhD, U. of Texas, Austin, 1968.
Murray, Robert B. (1985) BS, Utah State U., 1951; MBA, Harvard U., 1957.
Oveson, Richard M. (1976) BA, Brigham Young U., 1955; MPA, PhD, Harvard U., 1965, 1969.
Pearce, Wayne E. (1982) BS, MBA, U. of Utah, 1960, 1961.
Pritchett, Michael B. (1969) BS, Brigham Young U., 1965; MS, PhD, Purdue U., 1967, 1970.
Rickenbach, J. Dean (1957) BS, Brigham Young U., 1954; MS, Stanford U., 1957; PhD, Indiana U., Bloomington, 1963.
Schill, Ronald Lynn (1971) BS, MBA, U. of Utah, 1962, 1963; PhD, U. of Oregon, 1971.
Smith, Milton E. (1966) BA, MBA, PhD, U. of Utah, 1951, 1961, 1981.
Swinyard, William R. (1978) BS, Brigham Young U., 1965; MBA, U. of Michigan, 1967; PhD, Stanford U., 1976.

Managerial Economics (ManEc)

Undergraduate Courses

300. Economics of Market Systems. (3:3:0) Independent Study also. Prerequisite: Econ 110.
Decision making, price formation, and economic organization of the firm in market environments.

301. Macroeconomics for Business Decisions. (3:3:0) Independent Study also. Prerequisite: Econ 110.
Models of aggregate economic fluctuations, economic growth, inflation, and interest rates.

358. International Economics. (3:3:0) Prerequisite: Econ 110.
International trade theory and issues, economic integration, trade and development, contemporary trade problems.

376. Government and Business. (3:3:0) Prerequisite: Econ 110.
Interaction of political and economic forces in determining product and asset prices and the distribution of income and wealth.

387. Economics of Strategy. (3:3:0) Prerequisite: major status.
Economic tools influencing the success of strategy (creation and appropriation of value), emphasizing application of economic theory to management of practice.

453. Money, Banking, and Business. (3:3:0) Prerequisite: Econ 110; Bus M 301 or Accounting Junior Core.
Economic analysis of effects of money, banking, and financial institutions on business decisions and aggregate economic activity.

Engineering/Technology Management Degree Programs

See Marriott School of Management in the BYU 2007–2008 Graduate Catalog and the Ira A. Fulton College of Engineering and Technology Advisement Center.

Organizational Leadership and Strategy

William Gerard Sanders, Chair
790 TNRB, (801) 422-2794

Management Communication (M Com)

Undergraduate Courses

320. Communication in Organizational Settings. (3:3:0) F, W, Sp, Su Honors also. Prerequisite: GE First-Year Writing requirement. To be taken before senior year. Not for freshmen.
Developing written and oral communications for professional organizations, including composing and designing employment communications. Incorporates oral presentations. Fulfills GE Advanced Written and Oral Communication requirement.

321. Presenting in Organizational Settings. (1:1:1) Prerequisite: acceptance into a Marriott School major program.
Developing and delivering informative and persuasive presentations for professional organizations. Employment interviewing. Presentations will be videotaped.

490R. Special Topics in Management Communication. (1–3:Arr.:Arr. ea.) Prerequisite: M Com 320, 321.
Special subjects as announced before each semester.

Organizational Behavior (Org B)

Undergraduate Courses

320. Organizational Effectiveness. (3:Arr.:2) Taught online. Independent Study also.
Theories and concepts for creating effective organizations, e.g., individual, group, and organizational processes and human resource functions, including selection, compensation, and performance management.

321. Organizational Effectiveness. (3:2:2) Prerequisite: for Marriott School of Management majors only.
Theories and concepts for creating effective organizations, e.g., individual, group, and organizational processes and human resource functions, including selection, compensation, and performance management.

327. Human Resource Management. (3:3:0) Independent Study also.
Functions of human resource management: employee selection, wage and salary administration, training and development, employee relations, and human resource planning.

330 Organizational Development and Change. (3:3:0) F, W
Macro topics in organizational behavior, including organizational structure, culture, design, change management, strategic implementation, and HR training and development.

347. Managerial Leadership Development. (3:3:0) F, W
Principles and practices needed to serve as effective leaders in families, church, community, and work settings—planning, decision making, self-awareness, effective human influence, and community building.

400. Business Ethics. (2:2:0) Independent Study only.
Moral leadership, character development, and multiple perspectives for making ethical decisions in organizations.

428. Talent Management. (3:3:0) W
Topics related to managing highly skilled employees: succession planning, attracting and retaining employees, employment brand, labor market competition, executive recruiting and talent metrics.

429. Compensation, Benefits, and Performance Management. (3:3:0) W
Wage and salary administration, incentives, employee benefits, grievance and discipline systems, performance appraisal.

431. Managing Global Human Capital. (3:3:0) F Prerequisite: admittance to organizational behavior/human resource management emphasis.
International policies and practices in organizational behavior and human resource management.

490R. Professional Development Seminar. (1–3:Arr.:0 ea.)
Special topics in organizational behavior. Course content varies from year to year.

Graduate Courses

For 500-, 600-, and 700-level courses, see Business Administration in the BYU 2007–2008 Graduate Catalog.

Organizational Leadership and Strategy Faculty

Professors

Baker, William H. (1970) BS, Southern Utah U., 1969; MS, Brigham Young U., 1970; EdD, Oklahoma State U., 1974.
Cherrington, David J. (1973) BS, Brigham Young U., 1966; MBA, DBA, Indiana U., Bloomington, 1970, 1970.
Derr, C. Brooklyn (2001) BA, U. of California, Berkeley, 1967; EdD, Harvard U., 1971.
DeTienne, Kristen B. (1991) BA, California State U., 1987; MA, PhD, U. of Southern California, 1990, 1991.
Dyer, Jeffrey H. (1999) BS, MBA, Brigham Young U., 1982, 1984; PhD, U. of California, Los Angeles, 1993.
Dyer, W. Gibb, Jr. (1984) BS, MBA, Brigham Young U., 1977, 1979; PhD, Massachusetts Inst. of Technology, 1984.

Mills, Gordon E. (1971) BA, MA, Brigham Young U., 1966, 1967; PhD, Pennsylvania State U., 1970.
Perry, Lee T. (1985) BS, MOB, Brigham Young U., 1974, 1977; PhD, Yale U., 1982.
Timm, Paul Roy (1979) BA, State U. of New York, 1968; MA, Ohio U., 1969; PhD, Florida State U., 1977.
Whetten, David A. (1994) BS, MS, Brigham Young U., 1970, 1971; PhD, Cornell U., 1974.
Wilkins, Alan L. (1978) BA, MBA, Brigham Young U., 1972, 1974; PhD, Stanford U., 1979.
Woodworth, Warner P. (1976) BS, MS, Brigham Young U., 1967, 1969; PhD, U. of Michigan, 1974.

Associate Professors
Godfrey, Paul C. (1994) BS, U. of Utah, 1983; MBA, PhD, U. of Washington, 1989, 1994.
Jackson, W. Burke (1973) BS, Yale U., 1963; MBA, Rutgers U., 1964; MS, PhD, Stanford U., 1968, 1978.
Kirkham, Kate L. (1978) BS, U. of Utah, 1966; MA, George Washington U., 1973; PhD, Union Graduate School, 1977.
LeBaron, Curtis D. (2001) BA, Brigham Young U., 1989; MA, U. of Utah, 1993; PhD, U. of Texas, Austin, 1998.
Meek, Christopher B. (1984) BS, MOB, Brigham Young U., 1973, 1975; PhD, Cornell U., 1983.
Sanders, Wm. Gerard (1996) BS, Brigham Young U., 1980; PhD, U. of Texas, Austin, 1996.
Thompson, Michael P. (1988) BA, Brigham Young U., 1975; MS, PhD, Rensselaer Polytechnic Inst., 1978, 1985.

Assistant Professors
Bingham, John B. (2005) BA, MS, U. of Utah, 1998, 2000; PhD, Texas A&M U., 2005.
Bryce, David J. (2002) BS, MAcc, MBA, Brigham Young U., 1991; PhD, U. of Pennsylvania, 2003.
Felin, Teppo T. (2005) BA, MBA, Brigham Young U., 1997, 1999; PhD, U. of Utah, 2005.
Gardner, Timothy M. (2002) BA, Bowling Green State U., 1990; MS, Ohio State U., 1996; PhD, Cornell U., 2002.
Hansen, Mark H. (1996) BS, MBA, Brigham Young U., 1990; PhD, Texas A&M U., 1996.
Hanson, Kaye T. (1989) BA, MA, PhD, Brigham Young U., 1964, 1967, 1983.
Hatch, Nile (2000) BS, MS, Brigham Young U., 1988, 1989; PhD, U. of California, Berkeley, 1995.
Madsen, Peter M. (2006) BS, Brigham Young U., 2001; PhD, U. of California, Berkeley, 2006.

Emeriti
Ashby, Nadine T. (1960) BA, Brigham Young U., 1936; MA, Colorado State Coll., 1959; PhD, U. of North Dakota, 1971.
Bell, R. DerMont (1957) BS, MS, Brigham Young U., 1955, 1956; PhD, U. of Southern California, 1960.
Covey, Stephen R. (1957) BS, U. of Utah, 1953; MBA, Harvard U., 1957; DRE, Brigham Young U., 1976.
Hanson, Garth A. (1982) BS, MS, Utah State U., 1963, 1965; PhD, U. of Nebraska, 1973.
Hartman, Larry D. (1984) BA, MS, Brigham Young U., 1962, 1963; EdD, Oklahoma State U., 1973.
Howard-Tuten, Janet M. (1969) BS, MS, Northwestern State U., 1965, 1968; EdD, Brigham Young U., 1985.
Moffitt, J. Weldon (1953) BS, Brigham Young U., 1949; MS, U. of Utah, 1950; PhD, U. of Illinois, 1953.
Nelson, George Edward (1968) BS, MS, U. of Utah, 1965, 1966; EdD, Arizona State U., 1968.
Pace, R. Wayne (1978) BS, U. of Utah, 1953; MS, Brigham Young U., 1957; PhD, Purdue U., 1960.
Perry, Devern J. (1963) BS, MS, Brigham Young U., 1958, 1962; EdD, U. of North Dakota, 1968.
Peterson, Brent D. (1972) BA, MA, Brigham Young U., 1967, 1968; PhD, Ohio U., 1970.
Stephan, Eric G. (1968) BS, PhD, U. of Utah, 1961, 1966.
Stoddard, Ted D. (1969) BS, MS, Brigham Young U., 1962, 1963; EdD, Arizona State U., 1967.

Romney Institute of Public Management

Gary C. Cornia, Director
760-A TNRB, (801) 422-4221

Public Management (P Mgt)

Undergraduate Course

321. Public and Not-for-Profit Finance. (3:3:0)
Introduction to fund accounting, budgeting processes, and sources of revenue such as taxes, municipal bonds, user fees, donations, grants, dues, and ticket sales.

Graduate Courses

For 500-, 600-, and 700-level courses, see George W. Romney Institute of Public Management in the BYU 2007–2008 Graduate Catalog.

Romney Institute of Public Management Faculty

Professors
Adolphson, Donald L. (1980) BA, U. of California, Berkeley, 1966; MS, PhD, U. of Wisconsin, Madison, 1968, 1973.
Brady, F. Neil (1993) BS, MPA, Brigham Young U., 1970, 1980; PhD, U. of Texas, Austin, 1978.
Cornia, Gary C. (1980) BS, Weber State U., 1972; MS, Utah State U., 1974; PhD, Ohio State U., 1979.
Walters, Lawrence C. (2005) BA, Brigham Young U., 1981; PhD, U. of Pennsylvania, 1987.
Wheeler, Gloria E. (1978) BS, Montana State U., 1965; MA, MS, PhD, U. of Michigan, 1966, 1968, 1972.

Associate Professor
Seawright, Kristie K. (1993) BS, Brigham Young U., 1977; BS, MBA, PhD, U. of Utah, 1987, 1989, 1994.

Assistant Professors
Arbon, Chyleen (2003) BA, MPA, Brigham Young U., 1994, 1996; PhD, U. of Utah, 2004.
Facer, Rex L. (2001) BA, MPA, Brigham Young U., 1991, 1993; DPA, U. of Georgia, 2002.
Hart, David W. (2000) BA, MPA, Brigham Young U., 1989, 1991; PhD, State U. of New York, Albany, 1997.
Thompson, Jeffery A. (2003) BA, MBA, Brigham Young U., 1992, 1995; PhD, U. of Minnesota, 1999.
Wadsworth, Lori L. (2001) BS, MPA, Brigham Young U., 1982, 1995; PhD, U of Utah, 2003.

Instructor
Manwaring, Todd M. (2003) BS, MOB, Brigham Young U., 1987, 2001.

Emeriti
Buckwalter, Doyle W. (1968) BA, MA, Brigham Young U., 1963, 1964; PhD, U. of Michigan, 1968.
Hart, David Kirkwood (1983) BS, Brigham Young U., 1957; MA, U. of California, Berkeley, 1960; PhD, Claremont Graduate School, 1965.
Knighton, Lennis M. (1971) BA, MAcc, Brigham Young U., 1962, 1964; CPA, 1964; PhD, Michigan State U., 1966.
Parsons, Robert J. (1970) BS, MS, Brigham Young U., 1964, 1966; PhD, U. of California, Riverside, 1971.
Ritchie, J. Bonner (1973) BS, PhD, U. of California, Berkeley, 1960, 1968.
Snow, Karl N., Jr. (1962) BS, Brigham Young U., 1956; MA, U. of Minnesota, 1958; MPA, DPA, U. of Southern California, 1965, 1972.
Wright, N. Dale (1968) BA, MS, Brigham Young U., 1964, 1966; PhD, U. of Southern California, 1972.

Institute of Marketing

David S. Alcorn, Managing Director
Scott M. Smith, Faculty Director
435 TNRB, (801) 422-2709

The Institute of Marketing offers a marketing management emphasis through the business management program. It also sponsors the Fred G. Meyer Chair of Retailing, established to enhance the understanding and advancement of the industry and to promote successful business principles. Among the goals of the institute are:

1. Increase the quantity and quality of young people entering the retail, sales, and service fields of marketing management.
2. Increase student participation and training in supervised field studies and directed research projects.
3. Produce research that meets the demands of technological and management progress in marketing.
4. Produce workshops and seminars to futher educate students in marketing management and to increase their understanding of current management problems through sound marketing research practices.

The institute, in cooperation with the Marriott School of Management's Undergraduate Programs Office, places a large number of students in internship programs in leading companies across the United States. Internships are available to students of any major.

Certificate Sales and Certificate Retailing Programs

The institute sponsors two certificate programs, one in sales and one in retailing, for business management majors with an emphasis in marketing management. The requirements for both certificates are structured such that students simultaneously satisfy the requirements for the marketing management emphasis.

Certificate Sales (15 hours)

The certificate in sales prepares students for positions in sales and sales management, including consumer product sales, industrial sales, product/brand management, market analysis, and Internet marketing.

Certificate Requirements

1. Complete the following:
   Bus M 442, 454, 459.
2. Complete one course from the following:
   Bus M 441, 457.
3. Complete an academic internship (Bus M 496R, 3 hours) while working for a major national or regional business-to-business (B2B) sales company.

Certificate Retailing (15 hours)

The certificate in retailing prepares students for positions in retailing management, including merchandising, financial control, sales promotion, personnel, store operations, electronic data processing, and Internet marketing.

Certificate Requirements

1. Complete the following:
   Bus M 442, 456, 459.
2. Complete one course from the following:
   Bus M 448, 457.
3. Complete an academic internship (Bus M 496R, 3 hours) while working for a major national or regional retail company.

Management Communication

See Organizational Leadership and Strategy in Marriott School of Management section of this catalog.

Mandarin

See Asian and Near Eastern Languages.

Manufacturing Engineering

See Mechanical Engineering.

Manufacturing Engineering Technology

See School of Technology.

Maori

See Center for Language Studies.

Marshallese

See Center for Language Studies.

Mathematics

Tyler Jarvis, Chair
290 TMCB, (801) 422-2061

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree program in the Department of Mathematics is open enrollment.

The Discipline

Mathematics is a means of dealing with order, pattern, and number as seen in the world around us. The abilities to compute, to think logically, and to take a reasoned approach to solving problems are highly valued in society and are characteristics of any educated person. Mathematics is not just a body of knowledge, but a process of analysis, reasoning, comparison, deduction, generalization, and problem solving.

A mathematician's stock in trade is the ability to solve problems and to explain the solutions to others. Having once determined what the right questions are, solving problems involves analyzing both concrete and abstract situations, relating them to mathematical ideas, and using mathematical techniques to work toward solutions. Explaining the solution involves pointing out what has been solved and why the solution is valid.

Career Opportunities

Majors in mathematics (BS) prepare for a wide variety of careers. Some enter graduate school or professional schools and prepare for careers in such fields as college teaching, consulting, research and development, law, medicine, and business administration. Others take positions in government agencies, industrial laboratories, information management firms, or business organizations. All of them spend much time communicating with colleagues about the problems they are solving as they continue to learn more mathematics and share mathematical ideas with others.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Mathematics
Minor	Mathematics

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Mathematics
PhD	Mathematics

For more information see the BYU 2007–2008 Graduate Catalog.

Advisement

Upon completion of five core courses (from Math 112, 113, 190, 214, 343), undergraduate majors are required to meet with an assigned faculty advisor. Students whose grade point average is less than a B in the first four core courses need to realize that advanced courses require much more depth of understanding and may be difficult for them.

Students who are considering graduate work in mathematics may receive advice from the graduate coordinator.

General Information

1. It is recommended that a student complete the following courses in high school:

   4 units of English
   1 unit of physics or chemistry.
   4 units of mathematics, including 2.5 units of algebra, 1 unit of geometry, and .5 unit of trigonometry. This qualifies a student to begin college mathematics with Math 112. If calculus is available in high school, a student planning to major in mathematics is strongly encouraged to take it; doing so requires completing one of the preceding algebra units before high school.

   Advanced Placement (AP) credit is available in mathematics as follows:

   A score of 3 on the calculus AB exam gives credit in Math 110 and 111; a score of 4 or 5 on the calculus AB exam gives credit in Math 110 and 112.
   A score of 3, 4, or 5 on the calculus BC exam gives credit in Math 112 and 113.
   An AP student without credit in Math 112 must begin with Math 112; an AP student without credit in Math 113 must begin with Math 112 or 113.
   AP students with credit in Math 113 are urged to begin with Math 113 anyway, unless they scored 5 on the calculus BC exam.
   AP students should direct Educational Testing Service (ETS) to report scores to BYU to have credit posted.

   Questions regarding placement should be directed to the Mathematics Department, 292 TMCB.
2. Majors are strongly urged to study Phscs 121 and 220 during their first two years.

BS Mathematics (53 hours*)

Major Requirements

1. Grades of C– or below will not be acceptable in major courses.
2. Complete the following core requirements:
   Math 112, 113, 190, 214, 315, 334, 343, 371.

   Note: Math 112, 113 should be honors sections.
3. Complete the following:
   Math 316, 332.
4. Complete the following:
   C S 142.
5. Complete one of the following:
   Stat 321, 441.
6. After consulting with a faculty advisor, complete four courses from one of the following areas of specialization (at least one 500-level course must be included):
   Applied mathematics: Math 347, 511, 521, 522, 534, 541, 542, 547, 570.
   Discrete math and geometry: Math 350, 355, 362, 387, 451, 532, 553, 554, 570.
   Numerical analysis: Math 347, 410, 411, 510, 511.
   Pure mathematics: Math 372, 387, 451, 532, 541, 542, 553. 554.

7. Complete an additional 3 hours from the following:
   Math 300, 347, 350, 355, 362, 372, 387, 410, 411, 451, 460R, 480, 495R, 510, 511, 513R, 521, 522, 532, 534, 541, 542, 543, 547, 553, 554, 561, 562, 570, 587, 588.
   Phscs 517.
8. Students who continue toward graduate work should complete Math 372, 532, 541, and 542.
9. Those planning for doctoral work should also complete Math 451, 553, and 554 and are advised to gain competence in one or two languages from French, German, and Russian.
10. Students are required to take the mathematics major field test the last semester before they graduate. The test is an ETS (Educational Testing Service) standardized assessment test of undergraduate mathematics. Go to ETS Major Field Tests (http://www.ets.org/hea/mft/index.html) for a test description and sample problems. A passing score is required. This test does not appear on the transcript or affect the GPA.
11. Students must participate in an exit interview before graduation.

Recommended Courses

Phscs 121, 220.

*Hours include courses that may fulfill university core requirements.

Minor Mathematics (20 hours*)

Minor Requirements

1. Grades of C– or below will not be accepted.
2. Complete the following courses:
   Math 112, 113, 343.
3. Complete one course from the following:
   Math 214, 302, 315, 316.
4. Complete 6 hours from the following:
   Math 300, 315, 316, 332, 334 (or 303), 347, 350, 355, 362, 371, 372, 387, or any 400- or 500-level mathematics course.

*Hours include courses that may fulfill university core requirements.

Mathematics (Math)

Undergraduate Courses

Note: For courses containing material preparatory to Math 97 (up through beginning algebra) please refer to Independent Study.

97. Intermediate Algebra. (0:2:1) F, W, Sp, Su Independent Study also. Prerequisite: high school algebra.
Elementary logic, real number system, equations and inequalities (linear, polynomial, rational, and radical expressions), graphing, function notation, inverse function, exponential functions, systems of equations, variations. Fee.

102. Quantitative Reasoning. (3:3:0) F, W, Sp, Su For students who do not need developmental algebra for subsequent courses.
Practicing and applying quantitative reasoning: personal finance, consumer statistics, etc.

110. College Algebra. (3:3:0) F, W, Sp, Su Independent Study also. Prerequisite: Math 97 or equivalent.
Functions, polynomials, theory of equations, exponential and logarithmic functions, matrices, determinants, systems of linear equations, permutations, combinations, binomial theorem.

111. Trigonometry. (2:2:0) F, W, Sp, Su Independent Study also. Prerequisite: Math 110 or equivalent.
Circular functions, triangle relationships, identities, inverse trig functions, trigonometric equations, vectors, complex numbers, DeMoivre's theorem.

112. Calculus 1. (4:5:0) F, W, Sp, Su Honors also. Prerequisite: Math 110 and 111 or equivalents.
Differential and integral calculus: limits; continuity; the derivative and applications; extrema; the definite integral; fundamental theorem of calculus; L'Hôpital's rule.

113. Calculus 2. (4:5:0) F, W, Sp, Su Honors also. Prerequisite: Math 112 or equivalent.
Techniques and applications of integration; sequences, series, convergence tests, power series; parametric equations; polar coordinates.

119. Introduction to Calculus. (4:4:1) For students in the College of Biology and Agriculture and the Marriott School of Management. Independent Study also. F, W, Sp, Su Prerequisite: Math 110 or equivalent.
Introduction to plane analytic geometry and calculus.

190. Fundamentals of Mathematics. (3:3:0) F, W, Su Prerequisite: Math 112 or concurrent enrollment with instructor's consent.
Achieving maturity in mathematical communication. Introduction to mathematical proof; methods of proof; analysis of proof; induction; logical reasoning.

214. Calculus of Several Variables. (3:3:0) F, W, Sp, Su Prerequisite: Math 113; 343 or concurrent enrollment.
Partial differentiation, the Jacobian matrix, and integral theorems of vector calculus.

300. (Math-MthEd) History and Philosophy of Mathematics. (3:3:0) F, W, Sp Prerequisite: Math 113.
Historical development of important mathematical ideas and philosophies; implications for the mathematical curriculum.

302. Mathematics for Engineering 1. (4:4:0) F, W Prerequisite: Math 113 and passing grade on required preparatory exam taken during first week of class. (Practice exams available on class Web site.)
Multivariable calculus, linear algebra, and numerical methods.

303. Mathematics for Engineering 2. (4:4:0) F, W Prerequisite: Math 302; or Math 214 and 343.
ODEs, Laplace transforms, Fourier series, PDEs, numerical methods.

315, 316. Theory of Analysis. (3:3:0 ea.) 315: F, W; 316: F, W Prerequisite: for 315: Math 113, 190, 343; for 316: Math 315.
Rigorous treatment of calculus of single and several variables. Topics include uniform continuity, metric spaces, Riemann integral, implicit function theorem, and integral theorems of vector calculus.

332. Introduction to Complex Analysis. (3:3:0) F, W Prerequisite: Math 214 or 316.
Complex algebra, analytic functions, integration in the complex plane, infinite series, theory of residues, conformal mapping.

334. Ordinary Differential Equations. (3:3:0) F, W, Sp, Su Prerequisite: Math 113, 343.
Methods and theory of ordinary differential equations.

343. Elementary Linear Algebra. (3:3:0) F, W, Sp, Su Prerequisite: Math 112 or 119.
Linear systems, matrices, vectors and vector spaces, linear transformations, determinants, inner product spaces, eigenvalues, and eigenvectors.

347. Introduction to Partial Differential Equations. (3:3:0) W, Su Prerequisite: Math 303 or 334.
Boundary value problems; transform methods; Fourier series; Bessel functions; Legendre polynomials.

350. Combinatorics. (3:3:0) Prerequisite: Math 343, 371.
Permutations, combinations, recurrence relations, applications.

355. Graph Theory. (3:3:0) Prerequisite: Math 343.
Maps, graphs and digraphs, coloring problems, applications.

362. (Math-MthEd) Survey of Geometry. (3:3:0) F, W, Sp Prerequisite: Math 112, 190.
Logical and historical development of Euclidean and non-Euclidean geometry, transformations and symmetry; relationships among axiomatic systems; use of software and other geometric models; proofs and Van Hiele levels.

371, 372. Abstract Algebra. (3:3:0 ea.) 371: F, W, Sp; 372: W Prerequisite: for 371: Math 190, 343; for 372: Math 371.
Groups, rings, fields, vector spaces, linear transformations, matrices, field extensions, etc.

387. Number Theory. (3:3:0) Prerequisite: Math 343, 371.
Foundations; congruences; quadratic reciprocity; unique factorization, prime distribution or Diophantine equations.

391R. Seminar in Mathematics. (1:1:0) F
Topics from classical problems of antiquity, combinatorial mathematics, graph theory, real functions, number theory, functional equations.

399R. Academic Internship. (1–9:9:0 ea.) On dem.
On-the-job experience.

410. Introduction to Numerical Methods. (3:3:0) F, W Prerequisite: Math 214, 343.
Root finding, interpolation, curve fitting, numerical differentiation and integration, multiple integrals, direct solvers for linear systems, least squares, rational approximations, Fourier and other orthogonal methods.

411. Numerical Methods. (3:3:0) W Prerequisite: Math 334, 410.
Iterative solvers for linear systems, eigenvalue, eigenvector approximations, numerical solutions to nonlinear systems, numerical techniques for initial and boundary value problems, elementary solvers for PDEs.

451. Introduction to Topology. (3:3:0) F, W Prerequisite: Math 315.
Developing topological concepts, beginning from a linear setting. Developing proofs or counterexamples from axioms to a structured sequence of topological propositions using only notes provided.

460R. Topics in Geometry. (3:3:0 ea.) On dem. Prerequisite: Math 343, 362; or equivalents.
Topics selected from the various aspects of synthetic, analytic, algebraic, and differential geometry.

480. Mathematical Models. (3:3:0) On dem. Prerequisite: Math 214, 334, 343, 410.
Construction, solution, and interpretation of discrete and continuous models applied to problems in the physical, natural, and social sciences.

495R. Readings in Mathematics. (1–2:0:3 ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Directed readings beyond the scope of usual undergraduate courses.

499R. Senior Thesis. (1–3:0:3 ea.) F, W, Sp, Su

500-Level Graduate Courses (available to advanced undergraduates)

510. Numerical Methods for Linear Algebra. (3:3:0) F Prerequisite: Math 343, 410, or equivalents.
Numerical matrix algebra, orthogonalization and least squares methods, unsymmetric and symmetric eigenvalue problems, iterative methods, advanced solvers for partial differential equations.

511. Numerical Methods for Partial Differential Equations. (3:3:0) F Prerequisite: Math 303 or 347; 410; or equivalents.
Finite difference and finite volume methods for partial differential equations. Stability, consistency, and convergence theory.

513R. Advanced Topics in Applied Mathematics. (3:3:0 ea.) On dem. Prerequisite: instructor's consent.

521, 522. Methods of Applied Mathematics 1, 2. (3:3:0 ea.) On dem. Prerequisite: Math 334, 343; or equivalents.
Possible topics include: variational, integral, and partial differential equations; spectral and transform methods; nonlinear waves; Green's functions; scaling and asymptotic analysis; perturbation theory; continuum mechanics.

532. Complex Analysis. (3:3:0) Prerequisite: Math 332 or instructor's consent.
Introduction to theory of complex analysis at beginning graduate level. Topics: Cauchy integral equations, Riemann surfaces, Picard's theorem, etc.

534. Introduction to Dynamical Systems 1. (3:3:0) Prerequisite: Math 315, 334; or equivalents.
Discrete dynamical systems; iterations of maps on the line and the plane; bifurcation theory; chaos, Julia sets, and fractals. Computational experimentation.

541, 542. Real Analysis. (3:3:0 ea.) F, W Prerequisite: Math 315, 343; 214 or 316; or equivalents.
Rigorous treatment of differentiation and integration theory; Lebesque measure; Banach spaces.

543, 544. Advanced Probability 1, 2. (3:3:0 ea.) On dem. Prerequisite: Math 214 or equivalent. Recommended: Math 315, 316, Stat 441; or equivalents.
Probability theory and its applications. Topics include random variables, independence and conditioning, laws of large numbers, random walks, martingales, Markov chains, renewal processes, ergodic theorems, Brownian motion, and stochastic integration.

547, 548. Partial Differential Equations 1, 2. (3:3:0 ea.) On dem. Prerequisite: Math 214, 334; or equivalents. Recommended: Math 315, 316; or equivalents.
Topics include the method of characteristics, elliptic equations, potential theory, parabolic equations and systems, maximum principles, linear and nonlinear waves, Hamilton-Jacobi equations, Fourier transforms, Green's functions, distributions, and energy methods.

553. Foundations of Topology 1. (3:3:0) F, W Prerequisite: Math 451 or instructor's consent.
Naïve set theory, topological spaces, product spaces, subspaces, continuous functions, connectedness, compactness, countability, separation axioms, metrization, complete metric spaces, function spaces, and Baire spaces.

554. Foundations of Topology 2. (3:3:0) F, W Prerequisite: Math 553 or instructor's consent.
Fundamental group, retractions and fixed points, homotopy types, separation theorems, classification of surfaces, Seifert–van Kampen Theorem, classification of covering spaces, and applications to group theory.

561, 562. Introduction to Algebraic Geometry. (3:3:0) Prerequisite: Math 671 or concurrent enrollment.
Projective varieties, curves, surfaces, differential forms, and divisors.

565. Differential Geometry. (3:3:0) Prerequisite: Math 214, 315; or equivalents. Recommended: Math 316 or equivalent.
Curves and surfaces, including the first and second fundamental forms, Gauss map, curvatures, geodesics, minimal surfaces, and the Gauss-Bonnet Theorem.

570. Matrix Analysis. (3:3:0) Prerequisite: Math 302 or 343; or equivalents.
Special classes of matrices, canonical forms, matrix and vector norms, localization of eigenvalues, matrix functions, applications.

587. Introduction to Analytic Number Theory. (3:3:0) F or W Prerequisite: Math 332 or equivalent; instructor's consent.
Arithmetical functions; distribution of primes; Dirichlet characters; Dirichlet's theorem; Gauss sums; primitive roots; Dirichlet L-functions; Riemann zeta-function; prime number theorem; partitions.

588. Introduction to Algebraic Number Theory. (3:3:0) F or W
Prerequisite: Math 372 or equivalent; instructor's consent.
Algebraic integers, different and discriminant; decomposition of primes; class group; Dirichlet unit theorem; Dedekind zeta-function; cyclotomic fields; valuations; completions.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Mathematics Faculty

Orson Pratt Professor
Cannon, James W. (1986) BA, PhD, U. of Utah, 1967, 1969.

Professors
Baker, Roger C. (1991) BSc, PhD, U. of London, England, 1968, 1971.
Barrett, Wayne W. (1981) BS, U. of Utah, 1968; MS, PhD, New York U., 1975, 1975.
Chahal, Jasbir S. (1981) MA, Punjab U., India, 1970; PhD, Johns Hopkins U., 1979.
Fearnley, Lawrence (1957) BS, U. of London, 1953; PhD, U. of Utah, 1959; PhD, U. of London, 1970.
Forcade, Rodney W. (1981) BS, MS, U. of Chicago, 1961, 1963; PhD, U. of Washington, 1971.
Humphries, Stephen P. (1987) BSc, MSc, PhD, U. of Wales, 1974, 1978, 1983.
Jarvis, Tyler (1996) BS, MS, Brigham Young U., 1989, 1990; MA, PhD, Princeton U., 1992, 1994.
Kuttler, Kenneth L. (1999) BS, MS, Brigham Young U., 1974, 1976; PhD, U. of Texas, Austin, 1981.
Lang, William E. (1989) BA, Carleton Coll., 1974; MS, Yale U., 1975; PhD, Harvard U., 1978.
Lu, Kening (1990) BS, MS, Sichuan U., China, 1982, 1985; PhD, Michigan State U., 1988.
Ouyang, Tiancheng (1992) MS, Naukai U., China, 1981; PhD, U. of Minnesota, 1989.
Smith, William V. (1985) BS, PhD, U. of Utah, 1973, 1978.
Wright, David G. (1983) BS, Brigham Young U., 1970; MA, PhD, U. of Wisconsin, Madison, 1972, 1973.

Associate Professors
Cardon, David A. (1998) BS, Brigham Young U., 1990; MS, PhD, Stanford U., 1993, 1996.
Chow, Shue-Sum (1998) BS, U. of Canterbury, New Zealand, 1979; PhD, Australian National U., Australia, 1983.
Conner, Gregory R. (1992) BA, Humboldt State U., 1987; MS, PhD, U. of Utah, 1989, 1992.
Dallon, John (1999) BA, MA, PhD, U. of Utah, 1989, 1991, 1996.
Dorff, Michael (2000) BA, Brigham Young U., 1986; MS, U. of New Hampshire, 1992; PhD, U. of Kentucky, 1997.
Glasgow, Scott (2000) BS, Brigham Young U., 1988; PhD, U. of Arizona, 1993.
Grant, Christopher P. (1993) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of Utah, 1991.
Li, Xian-Jin (2001) BS, Hunan Normal U., China, 1982; MS, Academia Sinica, Beijing, China, 1985; PhD, Purdue U., 1993.
Swenson, Eric L. (1998) BS, PhD, Brigham Young U., 1987, 1993.
Tolman, L. Kirk (1965) BS, MS, Brigham Young U., 1960, 1961; PhD, U. of New Mexico, 1972.
Villamizar, Vianey (2000) BS, MS, Universidad Central de Venezuela, 1977, 1983; PhD, Rensselaer Polytechnic Inst., 1987.

Associate Teaching Professor
McKay, Steven (2002) BS, MS, Utah State U., 1983, 1985; PhD, Colorado State U., 1990.

Assistant Professors
Bakker, Lennard (2002) BS, MS, U. of Victoria, Canada, 1991, 1993; PhD, Queen's U., Canada, 1997.
Doud, Darrin M. (2001) BS, MS, Brigham Young U., 1992, 1993; MS, PhD, U. of Illinois, 1999, 1999.
Fisher, Todd (2007) BS, MS, Brigham Young U., 1998, 1999; PhD, Northwestern U., 2004.
Halverson, Denise M. (2001) BS, MS, Brigham Young U., 1989, 1994; PhD, U. of Tennessee, 1999.
Humpherys, Jeffrey (2005) BS, Utah State U., 1995; MA, PhD, Indiana U., 1997, 2002.

Emeriti
Chatterley, Louis J. (1962) BS, Brigham Young U., 1955; MS, U. of Utah, 1962; PhD, U. of Texas, Austin, 1972.
Clawson, Robert G. (1979) AA, Pasadena City Coll., 1960; BA, California State U., Los Angeles, 1963; MS, U. of South Dakota, 1971.
Crawley, Peter L. (1971) BS, PhD, California Inst. of Technology, 1957, 1961.
Fletcher, Harvey J., Jr. (1980) BS, Massachusetts Inst. of Technology, 1944; MS, California Inst. of Technology, 1948; PhD, U. of Utah, 1954.
Garbe, Douglas G. (1963) AS, Snow Coll., 1956; BS, Brigham Young U., 1962; MS, U. of Oregon, 1967; PhD, U. of Texas, Austin, 1973.
Garner, Lynn E. (1963) BS, Brigham Young U., 1962; MA, U. of Utah, 1964; PhD, U. of Oregon, 1968.
Gee, Burton C. (1960) BS, Brigham Young U., 1951; MS, EdD, Oregon State U., 1958, 1965.
Gill, Gurcharan S. (1960) BS, Brigham Young U., 1958; M.S, PhD, U. of Utah, 1960, 1965.
Haupt, Floyd E. (1954) BS, MS, U. of Arizona, 1947, 1948.
Hillam, Kenneth L. (1957) BS, MS, U. of Utah, 1949, 1956; PhD, U. of Colorado, 1962.
Jamison, Ronald D. (1963) BS, Brigham Young U., 1957; PhD, U. of Utah, 1965.
Larsen, Kenneth M. (1960) BA, U. of Utah, 1950; MA, Brigham Young U., 1956; PhD, U. of California, Los Angeles, 1964.
Moore, Hal G (1961) BS, MS, U. of Utah, 1952, 1957; PhD, U. of California, Santa Barbara, 1967.
Robinson, Donald W. (1956) BS, MA, U. of Utah, 1948, 1952; PhD, Case Inst. of Technology, 1956.
Skarda, R. Vencil (1965) BA, Pomona Coll., 1961; MS, PhD, California Inst. of Technology, 1964, 1965.
Snow, Donald Ray (1969) BA, BS, U. of Utah, 1959, 1959; MS, MS, PhD, Stanford U., 1960, 1962, 1965.
Wickes, Harry E. (1957) BS, MEd, Brigham Young U., 1950, 1954; MEd, Harvard U., 1962; EdD, Colorado State U., 1967.
Wight, Theodore A. (1963) BS, MS, EdD, U. of Utah, 1955, 1964, 1969.
Wynn, Jan Eugene (1966) BS, BS, U. of Idaho, 1962, 1962; MS, Utah State U., 1965; PhD, Colorado State U., 1972.

Mathematics Education

Gerald M. Armstrong, Chair
260 TMCB, (801) 422-1735

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

Candidates for all teacher preparation programs are required to complete an application that includes core criteria for each program. Applications are available from the Mathematics Education Department.

The Discipline

Mathematics is the discipline through which we make sense of the order, patterns, and quantitative situations we perceive in the world around us. The foundational skills of this discipline—the abilities to formulate, focus, and solve problems; to articulate, test, and justify conjectures; to communicate one's reasoning about quantities and the relationships between them; and to see connections between different mathematical ideas and real-world contexts—are highly valued in society and are characteristics of any educated person. Mathematics is not only a body of knowledge but also a process of analysis, reasoning, comparison, deduction, generalization, and problem solving.

Mathematics educators depend heavily upon their own understanding of mathematics in order to identify and articulate the mathematical ideas they want students to learn, to assess which concepts their students already possess that might serve as a foundation for learning, and to develop activities that help students develop rich understandings. They also use their understanding of the nature of the discipline to structure a culture of inquiry, reasoning, and problem solving in their classrooms.

Courses in the undergraduate program are designed to help prospective teachers plan, manage, and implement classroom activities that facilitate students' learning of mathematics. Specific program goals include (1) mastery of the foundational skills of mathematics, (2) deep reflection on mathematics learning at all levels, through observation of and participation in high-quality classroom practice, (3) increased autonomy and confidence as an investigator, active learner, and productive thinker, and (4) extended field experience, informed by the best current understanding.

Program faculty include educational and mathematical researchers, specialists in both preservice and inservice teacher education, and school practitioners, spanning a broad range of interest and experience.

Career Opportunities

Majors in mathematics education prepare for careers in teaching at the middle school and junior and high school levels or graduate studies in the field.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Mathematics Education
Minor Mathematics Education

Students should see their college advisement center and department advisors for information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Mathematics Education

For more information see the BYU 2007–2008 Graduate Catalog.

Advisement

Upon completion of five core courses (Math 112 [honors section], 113 [honors section], 190, MthEd 117, Sc Ed 276R), undergraduate majors are required to meet with the undergraduate advisor to begin the program admissions process. Students whose grade point averages are less than a B in the first five core courses need to realize that advanced courses require much more depth of understanding and may be difficult for them.

Students who are considering graduate work in mathematics education may receive advice from the graduate coordinator.

General Information

It is recommended that a student complete the following courses in high school:

4 units of English.
1 unit of physics or chemistry.
4 units of mathematics, including 2.5 units of algebra, 1 unit of geometry, and .5 unit of trigonometry. This qualifies a student to begin college mathematics with Math 112 (honors section). If calculus is available in high school, a student planning to major in mathematics education is strongly encouraged to take it; doing so requires completing one of the preceding algebra units before high school.

Advanced Placement (AP) credit is available in mathematics as follows:

A score of 3 on the calculus AB exam gives credit in Math 110 and 111; a score of 4 or 5 on the calculus AB exam gives credit in Math 110 and 112.
A score of 3, 4, or 5 on the calculus BC exam gives credit in Math 112 and 113.
An AP student without credit in Math 112 must begin with Math 112 (honors section); an AP student without credit in Math 113 must begin with Math 112 or 113 (honors sections).
AP students with credit in Math 113 are urged to begin with Math 113 (honors section) anyway, unless they scored 5 on the calculus BC exam.
AP students should direct Educational Testing Service (ETS) to report scores to BYU to have credit posted.

Questions regarding placement should be directed to the Mathematics Education Department, 260 TMCB.

BS Mathematics Education (74 hours*, including licensure hours)

Major Requirements

1. Grades below C– will not be acceptable in major courses.
2. Complete the following core requirements:
   MthEd 117, 218, 308, 377, 378.

   Note: Prerequisites for all mathematics education courses will be strictly adhered to.

   Note: Fingerprinting and FBI clearance must be completed prior to enrollment in MthEd 377.

3. Complete the following:
   Math 112, 113, 190, 214, 315, 334, 343, 371.
   MthEd 300, 362.
   Stat 301.

   Note: Math 112 and 113 must be honors sections.
4. Complete one course from the following:
   Math 350, 355, 387.
5. A teaching minor is not needed for licensure. However, it is strongly recommended.
6. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      Sc Ed 276R (4 hours required), 350, 353, 379.
   b. Complete 12 hours from one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor Mathematics Education (33 hours*)

Minor Requirements

1. Grades below C– will not be accepted.
2. Complete the following:
   Math 112, 113, 190, 343, 362.
   MthEd 117, 218, 308, 377, 378.
   Stat 301.

*Hours include courses that may fulfill university core requirements.

Mathematics Education (MthEd)

Undergraduate Courses

117. Critical Review of School Mathematics. (3:3:0) F, W, Sp Prerequisite: Math 113.
Strengthening understanding of high-school mathematics; gaining awareness as mathematics learners in learning communities; learning how to support collabortive communities as teachers.

218. Task Design and Assessment of Student Understanding. (3:3:0) F, W, Sp Prerequisite: Math 113, 190, 343, MthEd 117, Sc Ed 276R.
Building tasks that elicit important mathematical ideas. Reflecting on and assessing the success of tasks through questioning and other methods of formative assessment.

300. (MthEd-Math) History and Philosophy of Mathematics. (3:3:0) F, W, Sp Prerequisite: Math 113.
Historical development of important mathematical ideas and philosophies; implications for the mathematical curriculum.

305. Basic Concepts of Mathematics. (3:3:1) F, W Prerequisite: Math 110 or equivalent; permission from Teacher Education Department.
Concept-oriented exploration of number, measurement, and informal geometry in relation to children's learning. Required of prospective elementary school teachers.

306. Concepts of Mathematics. (3:3:1) F, W Prerequisite: MthEd 305; permission from Teacher Education Department.
Concept-oriented exploration of rational numbers and proportional reasoning, probability, and early algebraic reasoning in relation to children's learning. Required of prospective elementary school teachers.

308. Mathematics Teaching with Technology. (3:3:0) F, W, Sp Prerequisite: Math 214, 343, 362; basic computer literacy.
Using technology to teach and understand mathematics. Math-specific software and calculators used to investigate Euclidean geometry, non-Euclidean geometry, algorithms, probabilities, etc., research regarding effectiveness.

362. (MthEd-Math) Survey of Geometry. (3:3:0) F, W, Sp Prerequisite: Math 112, 190.
Logical and historical development of Euclidean and non-Euclidean geometry, transformations and symmetry; relationships among axiomatic systems; use of software and other geometric models; proofs and Van Hiele levels.

377. Mathematics Teaching in the Public Schools. (3:3:0) F, W Prerequisite: Math 113, 190, 343, MthEd 117, 218, Sc Ed 276R, departmental consent.
Mathematics teaching practice in grades 7–12, including lesson/task design, curriculum evaluation, and classroom management in context of practice teaching.

378. Practicum in Mathematics Education. (1:0:3) F, W Prerequisite: MthEd 117, 218, Sc Ed 276R; concurrent enrollment in MthEd 377.
Implementing meaningful and engaging instruction for secondary students; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

495R. Readings in Mathematics Education. (1–2:0:3 ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Directed readings beyond scope of usual undergraduate courses.

499R. Senior Thesis. (1–3:0:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

550. Problem Solving. (3:3:0) On dem. Prerequisite: strong background in undergraduate mathematics; instructor's consent.
Solving and building explanations and presenting solutions to conceptually important problems. Connections between problem solving and understanding, and implications for teaching and learning.

562. Euclidean Geometry: Content, Learning, and Teaching. (3:3:0) Alt. yr. on dem. Prerequisite: Math 362 or equivalent.
Euclidean geometry, including classical problems, polyhedra, transformations, congruence, similarity, integer geometry, minimization; technology in geometry, Van Hiele levels, role of proof, and high school curriculum.

585R. Research Practicum. (3:3:0 ea.) Sp Prerequisite: graduate student status or instructor's consent.
Hands-on introduction to department research projects. Data analysis, discussion of theoretical frameworks, and reflection on possible implications.

590. Foundational Issues in Learning Mathematics. (3:2:2) Prerequisite: teaching certificate or completion of student teaching.
Introduction to research in mathematics learning; mathematical thinking; cognitive, social, and philosophical approaches to describing mathematics learning. Lab experience in classrooms.

591. Scholarly Inquiry in Mathematics Education. (3:2:2) Prerequisite: MthEd 590.
Introduction to scholarly inquiry in mathematics education; issues in research methodology. Lab experience in classrooms.

598R. Topics in Mathematics Education. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Includes specific research areas and curriculum studies of school mathematics topics (i.e., geometry, algebra, and calculus).

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Mathematics Education Faculty

Professors

Speiser, Robert David (1984) AB, Columbia Coll., 1965; PhD, Cornell U., 1970.

Williams, Steven R. (1993) BS, MS, Brigham Young U., 1980, 1983; PhD, U. of Wisconsin, Madison, 1989.

Teaching Professor

Voyles, Jacqueline Taylor (1978) BS, Idaho State U., 1966; MA, EdD, Brigham Young U., 1976, 1987.

Associate Professors

Armstrong, Gerald M. (1970) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of Wisconsin, Madison, 1971.

Lawlor, Gary R. (1991) BS, Brigham Young U., 1984; PhD, Stanford U., 1988.

Peterson, Blake (1996) BA, Utah State U., 1986; MS, PhD, Washington State U., 1990, 1993.

Siebert, Daniel (2000) BS, MS, Brigham Young U., 1989, 1993; PhD, U. of California, San Diego, 2000.

Walter, Charles N. (1969) BA, MA, PhD, U. of New Mexico, 1963, 1965, 1970.

Assistant Professors

Belnap, Jason (2004) BS, Utah State U., 1996; MS, PhD, U. of Arizona, 1998, 2005.

Gerson, Hope (2005) BA, Whittier Coll., 1990; MS, U. of Iowa, 1992; PhD, U. of New Hampshire, 2000.

Leatham, Keith (2003) BS, MS, Utah State U., 1992, 1998; PhD, U. of Georgia, 2002.

Walter, Janet (2002) BA, MA, Brigham Young U., 1988, 1992; EdD, Rutgers U., 2004.

Assistant Teaching Professor

Hendrickson, Scott (2005) BA, MA, Brigham Young U., 1979, 1984.

Instructor

Corey, Douglas (2006) BA, MA, Brigham Young U., 1999, 2001; MA, U. of Michigan, 2004.

Mechanical Engineering

Larry L. Howell, Chair
435-A CTB, (801) 422-2625

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

The degree program in the Department of Mechanical Engineering carries special enrollment limitations at the junior level. Please see Professional Program Acceptance below and the college advisement center for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Mechanical Engineering

Students should see their college advisement center or a faculty member for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Mechanical Engineering
PhD Mechanical Engineering

For more information see the BYU 2007–2008 Graduate Catalog.

The Discipline

Mechanical engineers work with concepts, ideas, and products that are primarily mechanical or energy related. Mechanical engineering is a broad discipline that prepares a person to contribute in a wide range of fields such as aerospace, computer graphics, power generation, machine tools, petroleum, agricultural and construction equipment, medicine, government, and all types of transportation. A mechanical engineer may work in research, design, analysis, manufacturing, testing, operations, sales, or management. Engineers use critical problem-solving methods and basic principles of mathematics and science to creatively solve problems.

Educational Objectives

The Brigham Young University Department of Mechanical Engineering undergraduate bachelor of science program pursues the following objectives:

1. Teach the fundamental concepts of math, science, and mechanical engineering to produce graduates who demonstrate technical excellence and provide service to their profession, community, family, and church.
2. Instill a desire and ability to learn continuously, both through study and faith, to enable graduates to meet the changing demands of their profession and personal life.
3. Provide practical and open-ended engineering experiences to develop graduates who think independently and demonstrate leadership and creativity.

4. Engage students in activities to produce graduates who communicate and work effectively and ethically with people of diverse backgrounds.

Program Outcomes

To assure that these objectives are reached, the department has articulated twelve outcomes of the BS program. Each student graduating from this program is expected to have:

1. A basic understanding of fundamental physical phenomena and governing principles.
2. An ability to develop and solve mathematical models of fundamental physical phenomena.
3. An ability to design a system, component, or process to meet desired needs.
4. The expertise to plan and conduct an experimental program and evaluate the results.
5. An ability to use modern engineering tools and techniques in engineering practice.
6. An understanding of manufacturing processes and planning.
7. Effective oral and written communication skills.
8. An ability to work with others to accomplish common goals.
9. An appreciation of history, philosophy, literature, science, and the fine arts.
10. Personal behavior consistent with high moral and ethical standards.
11. An understanding of engineering in a global, societal context.
12. A desire for and commitment to lifelong learning and service.

All courses in the curriculum are designed to help achieve these outcomes.

The curriculum in mechanical engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (ABET).

Career Opportunities

A bachelor of science degree in mechanical engineering provides widely recognized professional training for careers in industry, government, and other areas. Most industrial companies hire some mechanical engineers. Companies that make mechanical or energy-related products may hire mostly mechanical engineers. As a result, many mechanical engineering positions are available worldwide. Mechanical engineers have job opportunities in companies involved in such areas as aircraft and spacecraft design; manufacturing processes; product safety and reliability; solar energy; electronic equipment packaging and cooling; power plant design; jet, train, truck, and automobile engines; environmental protection; artificial intelligence; robotics; medical and hospital equipment; new material development and applications; and technical writing. Increasing numbers of positions utilize foreign language experience.

A graduate in mechanical engineering is prepared for advanced studies in the field as well as in a variety of other disciplines, including law, medicine, and business administration. Perhaps most important to graduates are the problem-solving strategies and thinking processes acquired in the study of mechanical engineering that help one to succeed in any area of endeavor.

General Information

Any student may choose to major in mechanical engineering and to enroll in all classes in the preprofessional program (items 1 and 2 under BS Mechanical Engineering Major Requirements).

Professional Program Acceptance

Students must be accepted into the professional program before they may take the professional Me En core or technical electives (items 4 and 5 in the major requirements). To apply, students must have completed the following four courses at a college or university (neither AP nor concurrent enrollment credit meet this requirement):

1. One course from the basic science core (item 1 in the major requirements).
2. One course from the mathematics core (item 2 in the major requirements).
3. Me En 172.
4. CE En 103.

Only one repeat is allowed in any of these courses for purposes of determining professional program acceptance. If a student has taken more than four professional application courses or has repeated any of these courses, all grades received in the professional application courses will be considered in determining professional program acceptance.

A fixed number of students is granted acceptance to the professional program each year. Acceptance is based primarily upon the grade point average for the professional application courses. Because the class size is fixed, the GPA necessary for admission varies from year to year. Historically, students with a GPA of 2.9 or above in the professional application courses have been admitted to the professional program.

Normal application deadlines are June 12, October 1, and February 1. Applications from transfer students who have been admitted to the university may be considered at other times.

Professional program application forms are available in the college advisement center.

Academic Standards and Continuance

On gaining acceptance into the professional program, students must maintain a minimum university cumulative grade point average of 2.0. No more than 6 credit hours of grades below C– in major courses may be applied toward graduation. A professional program course may not be retaken more than once.

BS Mechanical Engineering (94.5–98.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following basic science core:
   Chem 105.
   Phscs 123, 220.

   Note: Students without high school physics should start with Phscs 121.
2. Complete one of the following mathematics core sequences:
   a. Math 112, 113, 302, 303.
   b. Math 112, 113, 214, 334, 343.
3. Complete the following preprofessional engineering courses:
   CE En 103, 203, 204.
   EC En 301.
   Me En 172, 191, 250, 282.
4. Complete the following professional mechanical engineering core:
   Me En 312, 321, 335, 340, 363, 372, 373, 475, 476.
5. Complete the following supporting courses:
   Engl 316.
   Stat 332.
6. Complete 15 hours (five courses) of technical electives. The purpose of these courses is to strengthen the engineering education of the student by
   a. deepening the student's understanding of engineering and/or science fundamentals,
   b. helping the student learn to apply engineering fundamentals in specific areas of interest, and
   c. helping the student to develop critical skills related to engineering practice.

   The technical electives are normally 400-level or higher mechanical engineering courses, but other courses may be used as long as the following requirements are met:
   - At least three courses must be in mechanical engineering.

- No courses may be below the 300 level.
- A maximum of 3 credit hours in Me En 595R or other independent project courses may be applied to meet technical elective requirements.
- All courses must be of an acceptable level from mechanical engineering, civil engineering, chemical engineering, computer engineering, electrical engineering, mathematics, statistics, physics, chemistry, or computer science; or they must be on the approved elective list in the department office.

  If a student wishes to count a course outside these areas as an elective, approval must be granted *before* the course is taken. Approval is requested by submitting to the department undergraduate committee a one-page petition that lists all of the proposed electives and demonstrates how the proposed exception meets the purposes described above.
- No course used to satisfy other major requirements for graduation may be used as an elective.

Manufacturing Option

The Society of Manufacturing Engineers has identified four areas of competency for manufacturing engineering as follows: (1) materials and manufacturing processes; (2) process, assembly and product engineering; (3) manufacturing competitiveness; and (4) manufacturing systems design.

An option in manufacturing engineering is available for mechanical engineering majors. It may be completed by taking 12 hours of technical electives from the following three areas (which may be counted against the 9 hours of mechanical engineering electives) according to the following requirements:

1. Complete the following:
   Me En 585.
2. Complete one or more courses from the following:
   Me En 482, 486, 537.
3. Complete the 12-hour requirement with courses from the following:
   Me En 452, 456, 477, 558, 584.

When combined with required courses for all mechanical engineering majors related to manufacturing, namely Me En 250, 282, 475/476, and Stat 332, this option provides a strong foundation in manufacturing engineering.

*Hours include courses that may fulfill university core requirements.

Mechanical Engineering (Me En)

Undergraduate Courses

172. Engineering Graphics—Principles and Applications. (3:3:0) F, W, Sp Prerequisite: engineering and technology major status.

Comprehensive applications of CAD-based national (ANSI) and international (ISO) graphics standards, including coordinate and geometric dimensioning and tolerancing practices, manufacturing, and product verification procedures.

191. New Student Seminar. (.5:1:0) F, W

Topics of special interest to new mechanical engineering majors. Required of all first-semester freshman and transfer students.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp or Su Prerequisite: consent of both department chair and cooperative education coordinator.

Work experience evaluated by supervisor and posted on student's transcript.

250. Science of Engineering Materials. (3:3:0) F, W, Sp or Su Prerequisite: Chem 105.

Principles and properties of solid materials and their behavior as applied to engineering.

282. Manufacturing Processes. (3:2:3) F, W, Sp or Su Prerequisite: CE En 203, Me En 250.

Common manufacturing processes, including technological limitations and economic considerations. Influence of product design on process selection and manufacturing efficiency.

312. Fluid Mechanics. (3:3:1) F, W, Sp or Su Prerequisite: Me En 321, 363; 373 or concurrent enrollment.

Physics and modeling of fluid flow; fluid statics, dimensional analysis, momentum, internal and external viscous flow, compressible flow, and fluid machinery.

321. Thermodynamics. (3:3:0) F, W, Sp or Su Prerequisite: Phscs 123; Math 303 or 334.

Fundamentals of thermal energy and work; principle of state, conservation of mass, conservation of energy, increase of entropy principle; application to thermal and mechanical processes.

335. Dynamic System Modeling and Analysis. (3:3:1) F, W, Sp or Su Prerequisite: Math 303 or 334; Me En 363, 373, CE En 204.

Formulating mathematical models for mechanical, electrical, fluid, and combined systems; numerical solution of motion equations; first- and second-order systems, frequency response, and transfer functions.

340. Heat Transfer. (3:3:1) F, W, Sp or Su Prerequisite: Me En 312.

Fundamentals of heat transfer; basics of conduction, convection, and radiation; mass transfer by analogy; heat exchangers; computer applications to practical design and analysis problems.

363. Elementary Instrumentation. (3:2:3) F, W, Sp or Su Prerequisite: Math 303 or 334; EC En 301; Engl 316 or concurrent enrollment.

Fundamentals of mechanical measuring systems; sensors, signal conditioning, statistical error analysis, dynamic response, standards.

372. Mechanical System Design Fundamentals. (3:2:3) F, W, Sp or Su Prerequisite: CE En 203, Me En 172, 250, 282; Me En 373 or concurrent enrollment.

Static and dynamic stress and failure analysis for mechanical systems.

373. Introduction to Scientific Computing and Computer-Aided Engineering. (3:2:3) F, W, Sp or Su Prerequisite: Math 113; concurrent enrollment in Math 214 or 302.

Computer programming for engineers taught in context of solving physical systems using numerical methods. Student will program solutions using the C++ language, spreadsheets, symbolic solvers, etc.

412. Applications of Fluid Dynamics. (3:3:0) F Prerequisite: Me En 312.

One-dimensional compressible flow, shocks, expansions, nozzles; turbomachinery design and performance; pumps, compressors, fans, and turbines; introduction to CFD with applications.

415. Applied Aerodynamics and Flight Mechanics. (3:3:0) Sp or Su Prerequisite: Me En 312.

Modern applied aerodynamics, including performance, stability, and control of aerospace vehicles.

422. Applied Thermodynamics. (3:3:1) W, Sp or Su Prerequisite: Me En 321, 363, 373.

Applied engineering thermodynamics including air and steam power cycles, thermodynamic relations, and introduction to combustion and equilibrium chemical reactions.

425. Internal Combustion Engines. (3:2:3) F Prerequisite: Me En 321 or equivalent.

Fundamental operating characteristics of internal combustion engines, spark and compression ignition. Thermodynamic cycle analysis, performance and emissions characterization, and dynamometer testing on CFR and production engines.

426. Gas Turbine and Jet Engine Design. (3:3:0) W Prerequisite: Me En 312, 321; or equivalents.
Design and synthesis of land-based and aircraft gas turbines utilizing fluid flow and thermodynamic fundamentals. Extensive discussion of turbojet, turbofan, and turboprop engines.

431. (Me En–EC En 483) Design of Control Systems. (3:3:0) F Prerequisite: Me En 335 or EC En 380.
Classical frequency response and time domain design of control systems. State variable control and computer simulation of control systems.

437. Kinematics. (3:3:0) W, Sp or Su Prerequisite: CE En 204; Math 303 or 334; Me En 373.
Relative motion of links in mechanisms; velocities and accelerations of machine parts; rolling contact; cams; synthesis of mechanisms. Includes computer-aided engineering techniques.

452. Intermediate Materials. (3:3:0) Prerequisite: Me En 250, 372; or equivalent.
Mechanical behavior of engineering materials including metals, plastics, ceramics, and composites.

456. Composite Material Design. (3:3:0) Prerequisite: Me En 250.
Macro- and micro-mechanical analysis and design of uni- and multidirectional composite materials.

471. Computer-Aided Engineering Applications. (3:3:0) F Prerequisite: Me En 172, 373, CE En 203, 204.
Application of computer-aided engineering tools to design; 3-D geometry and solid modeling; applying finite element analysis, kinematic analysis, and other software to engineering analysis.

472. Mechanical Systems Design Applications. (3:3:0) W Prerequisite: Me En 372.
Theory, analysis, and design of mechanical systems and components.

475, 476. Integrated Product and Process Design 1, 2. (3:2:3 ea.) F, W Prerequisite: Me En 321, 363, 372, 373; senior standing (fewer than 30 hours remaining in the program) in mechanical engineering, manufacturing engineering technology, industrial design, or related disciplines with instructor's consent.
Comprehensive two-semester design experience from conception to manufacturing planning and prototype. Product development process. Economic and manufacturing considerations. Intellectual property assignment agreement required. Must be taken in consecutive fall and winter semesters.

477. Design for Manufacture and Assembly. (3:3:0) W Prerequisite: Me En 282, 372; or equivalent.
Design practice for manufacturing considerations. Surface finish, tolerances, GD&T, and inspection and gaging principles. Application of computer-aided tolerancing and inspection.

482. Manufacturing Systems Analysis and Design. (3:3:0) F Prerequisite: Me En 250, 282; or equivalents.
Analysis, synthesis, and control of processing and assembly operations; mathematical modeling of manufacturing processes; systems integration; applying conservation principles to processing and assembly operations.

486. Automation. (3:3:0) F
Determining appropriate levels of manufacturing automation based on economics and productivity. Elements of automation, including sensors, robots, conveyors, and part feeders.

495R. Mentored Learning for Undergraduates in Mechanical Engineering. (1–6:Arr.:Arr. ea.) F, W, Sp, Su
Independent learning with a faculty member.

499R. Honors Thesis. (1–6:0:0 ea.) F, W, Sp or Su

500-Level Graduate Courses (available to advanced undergraduates)

500. (Me En-CE En) Design and Materials Applications. (3:3:0) W Prerequisite: CE En 203; Me En 372 or CE En 321; or equivalent.
Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability—all as applied to mechanical design.

501. (Me En-CE En) Stress Analysis and Design of Mechanical Structures. (3:3:0) Sp or Su Prerequisite: CE En 321 or Me En 372; or equivalent.
Stress analysis and deflection of structures; general bending and torsion, with computer applications to mechanical and aerospace structure design.

503. (Me En-CE En) Plasticity and Fracture. (3:3:0) F Prerequisite: CE En 203; Me En 250; Math 303; senior standing or instructor's consent.
Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

504. (Me En–CE En) Computer Structural Analyis and Optimization. (3:3:0) F Prerequisite: linear algebra; CE En 321 or Me En 372; or equivalents.
Matrix analysis of rods, shafts, beams, trusses, frames, and grids using the generalized stiffness method. Optimization methods for these structures. Organizing computer programs for structural analysis and structural optimization.

506. (Me En-CE En) Continuum Mechanics and Finite Elements. (3:3:0) W Prerequisite: linear algebra; CE En 321 or Me En 372; or equivalents.
Equilibrium, constitutive, and compatibility equations; closed-form solutions from elasticity; finite element theory, programming, and usage; membrane, axisymmetric, and solid elements. Application to heat transfer, fluid mechanics, and seepage.

508. (Me En-CE En) Structural Dynamics. (3:3:0) F Prerequisite: CE En 321 or Me En 372; or equivalents.
Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems.

510. Compressible Fluid Flow. (3:3:1) W odd yr. Prerequisite: Me En 312.
One-dimensional analysis of compressible flow with area change, friction, heat transfer, shock waves, and combined effects, including experimental methods.

512. Intermediate Fluid Dynamics. (3:3:0) F Prerequisite: Me En 312 or instructor's consent.
Review of fluid properties, Navier-Stokes equations, exact and similarity solutions, introduction to potential flows, stream functions, lift and drag, boundary layers, vorticity, and turbulence.

521. Intermediate Thermodynamics. (3:3:0) F odd yr. Prerequisite: Me En 422 or eqivalent.
Review of first and second law analysis; energy; equations of state and other thermodynamic relations; properties of mixtures and multiphase systems; chemical reactions and equilibrium.

522. Combustion. (3:3:0) W Prerequisite: Chem 105, Me En 422, or instructor's consent.
Introduction to first- and second-law ideal gas combustion systems along with elementary models of homogeneous and heterogeneous premixed and/or diffusion flames.

523. (Me En-CE En) Aircraft Structures. (3:3:0) W Prerequisite: CE En 305, 321 or Me En 250, 372; or equivalents.
Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

534. Dynamics of Mechanical Systems. (3:3:0) W Prerequisite: Me En 335 or equivalent.
Hamiltonian and Lagrangian dynamics, generalized coordinates, linear and angular momentum, Euler angles, rigid-body motions, and gyroscopic effects. Theory taught with applications integrated.

535. Mechanical Vibrations. (3:3:0) F Prerequisite: Me En 335 or equivalent.
Introduction to energy methods for system modeling, eigenvalues and mode shapes, frequency response, and spectral characterization of vibrations.

537. Advanced Mechanisms, Robotics. (3:3:0) W Prerequisite: Me En 437 or equivalent.
Kinematics and dynamics of advanced mechanisms, such as robots, with computer simulation of mechanism motion.

538. Compliant Mechanisms. (3:3:0) Prerequisite: Me En 372; 475 or concurrent enrollment; or instructor's consent.
Design and analysis of compliant mechanisms and compliant structures. Large-deflection analysis/force displacement relationships; mechanisms synthesis.

540. Intermediate Heat and Mass Transfer. (3:3:0) W Prerequisite: Me En 340 or equivalent.
Analytical approaches to conduction, convection, and radiation heat transfer. Introduction to mass transfer.

541. Numerical Heat Transfer. (3:3:0) F Prerequisite: Me En 340 or instructor's consent.
Heat transfer analysis by numerical methods. Finite difference and finite element methods, stability, and error analysis.

550. (Me En–EC En) Microelectromechanical Systems (MEMS). (3:3:0) F even yr. Prerequisite: EC En 450 or Me En 372 or equivalent.
Design, fabrication, and applications of MEMS. Mechanical properties governing their design and reliability and the processing technologies used to fabricate them.

557. Corrosion. (3:3:0) F odd yr. Prerequisite: Chem 105 or equivalent.
Basic principles, eight common forms of corrosion, testing, materials, applications, modern theory, and high temperature metal-gas reactions.

558. Metallurgy. (3:3:0) F even yr. Prerequisite: Me En 250 or instructor's consent.
Fundamental principles of physical metallurgy and their application to design.

561. (Me En–Phscs) Fundamentals of Acoustics. (3:3:0) F Prerequisite: Phscs 123 or equivalent; Math 303 or 334 or equivalent. Recommended: Phscs 318, 321; or equivalents.
Sound generation, transmission, reflection, and reception. Vibrating systems, elastic media, mechanical energy, and radiation. Sound in tubes and cavities. Acoustic filters. Noise measurement and perception.

562. (Me En–Phscs) Analysis of Acoustic Systems. (3:3:0) W Prerequisite: Phscs 561 or instructor's consent.
Analyzing and modeling electro-mechano-acoustic systems. Transducers, calibration, and acoustical measurements. Sound sources, arrays, coupling, radiation, and directivity. Duct acoustics. Energy-based acoustics.

564. Digital Instrumentation and Mechatronic Systems. (3:2:3) F Prerequisite: Me En 363 or equivalent.
Design and analysis of instrumentation systems, fundamental sensor characteristics, and computer data acquisition; time and frequency domain modeling with analog and digital components.

570. (Me En-CE En) Computer-Aided Engineering Software Development. (3:3:0) F Prerequisite: Me En 373 or C programming.
Programming methods for development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

572. (Me En-CE En-C S 557) Computer-Aided Geometric Design. (3:3:0) W Prerequisite: proficiency in C programming.
Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, free-form deformation. Several programming projects.

575. (Me En-CE En) Optimization Techniques in Engineering. (3:3:0) W Prerequisite: Math 302 and FORTRAN, C, or similar computer language.
Application of computer optimization techniques to constrained engineering design. Theory and use of state-of-the-art computer routines. Robust design methods.

576. Product Design. (3:3:0) F Prerequisite: Me En 475 or instructor's consent.
Emerging design methodology and design strategies for complex systems, including decomposition methods and sensitivity analysis. Advanced CAD/CAE/CAM technologies applied to design.

578. CAD/Cam Applications. (3:3:0) W Prerequisite: advanced FORTRAN, C, or C++.
Principles and practices involved in parametric surface and solid modeling, associativity, NC tool path generation, etc. Construction of complete CAD models for design, analysis, and manufacture.

584. Manufacturing Process Machine Design. (3:3:0) W Prerequisite: Me En 372 or equivalent.
Applying machine design principles to manufacturing process machines and tooling; integrating machine elements; precision machine design. Designing and analyzing the effects of loading, combined stresses, and deflections on machine process capability. Sensors applied to process machines.

585. Manufacturing Competitiveness: Quality and Productivity. (3:3:0) F Prerequisite: Stat 332, Me En 282; or equivalents.
Production strategies to improve quality, decrease cost, and increase throughput to create market advantage; effective production management systems; applying quality improvement tools to process data; theory of constraints and lean production.

595R. Special Topics in Mechanical Engineering. (1–18:2:0 ea.) F, W, Sp, Su Prerequisite: department chair's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Mechanical Engineering Faculty

Professors

Adams, Brent L. (1999) BES, U. of Utah, 1974; MS, PhD, Ohio State U., 1976, 1979.
Chase, Kenneth W. (1968) BES, MS, Brigham Young U., 1962, 1964; PhD, U. of California, Berkeley, 1972.
Howell, Larry L. (1994) BS, Brigham Young U., 1987; MS, PhD, Purdue U., 1991, 1993.
Magleby, Spencer P. (1989) BS, MS, Brigham Young U., 1983, 1983; PhD, U. of Wisconsin, Madison, 1988.
Parkinson, Alan R. (1982) BS, Brigham Young U., 1977; MS, PhD, U. of Illinois, 1979, 1982.
Red, W. Edward (1983) BA, BSME, Rice U., 1965; PhD, Arizona State U., 1972.
Smith, Craig C. (1980) BES, MS, Brigham Young U., 1969, 1970; PhD, Massachusetts Inst. of Technology, 1973.
Todd, Robert H. (1989) BS, California State U., Northridge, 1964; MS, PhD, Stanford U., 1965, 1971.
Webb, Brent W. (1986) BS, MS, Brigham Young U., 1981, 1982; PhD, Purdue U., 1986.

Associate Professors

Blotter, Jonathan D. (2002) BS, MS, Utah State U., 1991, 1993; PhD, Virginia Polytechnic Institute and State U., 1996.

Bons, Jeffrey P. (2002) BS, MS, PhD, Massachusetts Inst. of Technology, 1988, 1990, 1997.
Bowman, W. Jerry (1997) BS, Brigham Young U., 1977; MSE, U. of Central Florida, 1982; PhD, Air Force Inst. of Technology, 1987.
Cox, Jordan (1986) BA, MS, Brigham Young U., 1983, 1984; PhD, Purdue U., 1991.
Eastman, Paul F. (1985) BA, PhD, U. of Utah, 1960, 1965.
Jensen, C. Gregory (1983) BS, MS, Brigham Young U., 1979, 1982; PhD, Purdue U., 1993.
Jones, Matthew R. (2001) BS, Brigham Young U., 1988; MS, PhD, U. of Illinois, 1990, 1993.
Maynes, R. Daniel (1997) BS, MS, Utah State U., 1992, 1993; PhD, U. of Utah, 1997.
McLain, Timothy W. (1995) BS, MS, Brigham Young U., 1986, 1987; PhD, Stanford U., 1995.
Nelson, Tracy W. (1994) BS, MS, PhD, Ohio State U., 1991, 1993, 1998.
Sorensen, Carl D. (1987) BS, Brigham Young U., 1981; PhD, Massachusetts Inst. of Technology, 1985.
Tree, Dale R. (1994) BS, Brigham Young U., 1986; MS, Purdue U., 1988; PhD, U. of Wisconsin, Madison, 1992.

Assistant Professors

Cotton, Mark B. (2006) BS, MS, PhD, U. of Utah, 1997, 2001, 2006.
Jensen, Brian D. (2005) BS, MS, Brigham Young U., 1996, 1998; MS, PhD, U. of Michigan, 2004, 2004.
Mattson, Christopher A. (2006) BS, MS, Brigham Young U., 1999, 2001; PhD, Rensselaer Polytechnic Inst., 2003.
Snyder, Deryl D. (2004) BS, MS, PhD, Utah State U., 1998, 1999, 2002.
Thomson, Scott L. (2004) BS, MS, Brigham Young U., 1999, 2000; PhD, Purdue U., 2004.

Adjunct Faculty

Beckwith, Scott W. (1990) BS, Texas A & M U., 1964; MS, California Inst. of Technology, 1965; PhD, Texas A & M U., 1974.
Germane, Geoffrey J. (1979) BS, MS, Rose-Hulman Inst. of Technology, 1972, 1975; PhD, Brigham Young U., 1978.
Simonsen, John M. (1954) BSME, U. of Utah, 1950; PhD, Purdue U., 1952, 1955.
Warner, Charles Y. (1966) BES, MS, Brigham Young U., 1957, 1963; PhD, U. of Michigan, 1966.
Woolley, Ronald L. (1983) BES, MS, Brigham Young U., 1966, 1968; PhD, Stanford U., 1974.

Emeriti

Andersen, Blaine W. (1970) BS, U. of Utah, 1949; MS, PhD, U. of Illinois, 1951, 1953.
Cannon, John N. (1957) BS, MS, U. of Utah, 1952, 1955; PhD, Stanford U., 1965.
Free, Joseph C. (1961) BES, Brigham Young U., 1958; MS, California Inst. of Technology, 1961; PhD, Massachusetts Inst. of Technology, 1967.
Heaton, Howard S. (1963) BES, U. of Southern California, 1957; MS, PhD, Stanford U., 1959, 1963.
Mortensen, Kay S. (1968) BS, MS, Utah State U., 1962, 1963; PhD, U. of Utah, 1967.
Polve, James H. (1969) BS, U. of Utah, 1948; MS, Princeton U., 1951; PhD, U. of Arizona, 1966; ME, U. of Utah, 1954.
Raisor, E. Max (1968) BS, MS, Brigham Young U., 1968, 1975.
Simmons, Val E. (1969) BS, U. of Utah, 1964; MS, Brigham Young U., 1967; PhD, Utah State U., 1970.
Tolman, Wilford J. (1960) BS, MS, Brigham Young U., 1960, 1964.
Ulrich, Richard D. (1968) BS, MS, PhD, Purdue U., 1954, 1955, 1959.
Wilkes, Doran F. (1958) BS, MS, Utah State U., 1951, 1955; EdD, U. of Missouri, Columbia, 1966.
Wille, Milton G. (1958) BA, BES, Brigham Young U., 1957, 1957; MS, California Inst. of Technology, 1958; PhD, U. of Michigan, 1964.

Maya

See Center for Language Studies.

Media Arts

See Theatre and Media Arts section of this catalog.

Microbiology and Molecular Biology

Brent L. Nielsen, Chair
775 WIDB, (801) 422-1102
Internet: http://www.mmbio.byu.edu

Department Advisement
Elaine Rotz
767 WIDB, (801) 422-4293

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Microbiology and Molecular Biology are open enrollment. However, special limitations apply for clinical laboratory science.

The Discipline

The Microbiology and Molecular Biology Department offers degrees in microbiology, molecular biology, and clinical laboratory science. A wide range of courses may be incorporated into a program of study, including: ecology, genetics, immunology, microbial physiology, molecular biology, molecular evolution, parasitology, pathogenesis, and evolution.

Career Opportunities

Graduates are employed in a wide variety of positions in industry, hospitals, government agencies, and universities. Majors from this department are an excellent preprofessional course of study for those interested in medicine, dentistry, law, or business.

The following courses are recommended for those students interested in graduate and professional programs:

Chem 351, 352, 353, 481.
Math 119 or higher.
Phscs 105, 106, 107, 108.
Stat 221.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Clinical Laboratory Science
BS	Microbiology
BS	Molecular Biology
Minors	Microbiology
	Molecular Biology

Students should see their advisor for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Microbiology
MS	Molecular Biology
PhD	Microbiology
PhD	Molecular Biology

For more information see the BYU 2007–2008 Graduate Catalog.

BS Clinical Laboratory Science (62 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Students who want to practice clinical laboratory science/medical technology in diagnostic laboratories or pursue related options choose this degree. The program in clinical laboratory science is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631, [773] 714-8880).

Admittance Requirements

1. Students must complete the following courses before applying to the program: Biol 240, 340; MMBio 151, 361.
2. Application deadlines are March 1 for fall semester and October 1 for winter semester admittance.

Major Requirements

1. Complete the following biology core requirements:
   Biol 120, 220, 240, 241, 340, 360.
2. Complete the following chemistry courses:
   Chem 105, 106, 107, 285.
3. Complete the following microbiology courses:
   MMBio 102, 151, 361.
4. Complete the following:
   MMBio 392, 393, 394, 395, 407, 417, 420, 421, 491.
5. Complete an internship experience. During one semester and one term, complete at least 2 hours from the following:
   MMBio 399R.

Recommended Courses

Engl 316.
PDBio 220, 305.
Stat 221.

*Hours include courses that may fulfill university core requirements.

BS Microbiology (61–67 hours*)

This is the preferred degree for microbiology majors who desire an advanced degree (master's or doctorate) in microbiology.

Major Requirements

1. Complete the following biology core requirements:
   Biol 120, 240, 241, 360.
2. Complete the following chemistry courses:
   Chem 105, 106, 107, 351, 352, 353, 481.
3. Complete the following microbiology courses:
   MMBio 151, 361.
4. Complete four courses from the following:
   MMBio 460, 461, 462, 463, 464, 465.

   Note: MMBio 465 can be taken with or without the MMBio 466 lab (1 hour).
5. Complete one of the following options:
   Either Phscs 105, 106.
   Or Stat 221.

6. Complete at least 10 hours from the following:
   Biol 340, 350, 420, 421.
   Chem 482.
   MMBio 390R, 399R, 407, 417, 430, 441, 442, 466, 494R, 554.
   MMBio 460, 461, 462, 463, 464, 465 (courses not chosen under item 4 above).
   NDFS 361.
   PAS 514.

   Note: Only 3 hours of MMBio 399R and 494R combined will count toward major hours.

Recommended Course

Engl 316.
Math 119 or Math 112, 113.
Phscs 107, 108

Note: Students desiring a minor in chemistry must take Chem 223 and 2 hours of Chem 353.

*Hours include courses that may fulfill university core requirements.

BS Molecular Biology (64–68 hours*)

Major Requirements

1. Complete the following biology core requiremeents:
   Biol 120, 240, 241, 340, 360, 420.
2. Complete the following chemistry courses:
   Chem 105, 106, 107, 351, 352, 481.
3. Complete at least one hour from the following:
   Chem 353.
4. Complete the following molecular biology courses:
   MMBio 264, 390R, 441, 442, 490R.
5. Complete two registrations of the following (not same semester or term) for a total of 3 hours as approved by mentor:
   MMBio 494R.
6. Complete one of the following options:
   Either Math 119
   Or Math 112, 113.
7. Complete the following:
   Phscs 105, 106.
8. Complete at least 10 hours (one of which must include a lab) from the following:
   Chem 461, 468, 482, 581, 584†, 586†.
   InBio 465†.
   MMBio 151†, 361, 399R, 430, 460†, 463†, 465, 466†.
   PAS 486, 525, 580†.
   PDBio 482†, 582.

   Note: Only 3 hours of MMBio 399R will count toward major hours.

   Note: † indicates a course with lab included.

Recommended Courses

Engl 316.
Phscs 107, 108.
Stat 221.

*Hours include courses that may fulfill university core requirements.

Minor Microbiology (14–16 hours, plus prerequisites in coupled major)

Minor Requirements

1. Complete the following:
   MMBio 151, 361.
2. Complete two courses from the following (at least one must have a lab component):
   MMBio 460, 461, 462, 463, 464, 465.

Minor Molecular Biology (11 hours, plus prerequisites in coupled major)

Minor Requirements

1. Complete the following:
   MMBio 264, 441, 442.
2. Complete at least 3 hours from the following:
   Biol 420.
   Chem 461, 468, 482, 581, 584, 586.
   InBio 465, 494R.
   MMBio 151, 361, 399R, 430, 460, 461, 463, 465, 466, 494R.
   NDFS 494R.
   PAS 486, 494R, 525, 580.
   PDBio 482, 494R, 582.

Note: Be aware of prerequisites for the above courses (usually filled in a coupled major).

Microbiology and Molecular Biology (MMBio)

Undergraduate Courses

102. Introduction to Clinical Laboratory Techniques. (1:0:3) F, W
Hospital laboratory techniques.

151. Introduction to Microbiology. (4:3:3) F, W Prerequisite: Biol 120, Chem 105, concurrent enrollment in Biol 240.
Principles of prokaryotic biology emphasizing cell structure, function, and metabolism. Introduction to bacterial genetics, microbial diversity, and microbial ecology.

221. General Microbiology. (3:3:0) F, W, Sp Independent Study also. Honors also. Prerequisite: any chemistry course and any biology course.
Microbial world, emphasizing communicable diseases, their causes, and control. Recommended for students seeking a liberal education in microbiology who do not have the prerequisites to take the more advanced courses.

222. General Microbiology Laboratory. (1:0:2) Prerequisite: MMBio 221 or concurrent enrollment.

264. (MMBio–Inbio 265–PAS 265) Genomics. (3:2:1) F, W Prerequisite: bioinformatics major status or Biol 120.
Introduction to genomics and genome projects (human, plant, bacterial, yeast, parasites). Introduction to genes and genomes; computational and statistical approaches for analyzing genomic data, including genome sequencing and annotation, gene expression, and the transcriptome, proteomics and functional genomics, and genetic variation and SNPs.

361. Infection and Immunity. (4:4:0) F, W Prerequisite: MMBio 151 or 221 or equivalent.
Principles of infectious organisms (principally bacteria and viruses), the diseases they cause, and the role of host immune responses in health and disease.

362R. Survey of Careers in Microbiology. (1:Arr.:Arr. ea.) F, W
Lectures and field trips surveying career choices.

390R. Readings in Molecular Biology. (1:1:0 ea.) F, W Prerequisite: Biol 360.
Selected readings in molecular biology.

392. Hematology. (2.5:2.5:1) W Prerequisite: clinical laboratory science program acceptance.
Normal and abnormal hematology.

393. Immunohematology and Coagulation Theory. (2.5:2.5:1) W Prerequisite: clinical laboratory science program acceptance.
Theory and practice of bloodbanking and coagulation theory.

394. Practical Hematology. (2:0:7) W Prerequisite: MMBio 392 or concurrent enrollment.
Laboratory to accompany MMBio 392; medical laboratory techniques in hematology.

395. Practical Immunohematology and Coagulation Theory. (2:0:7) W Prerequisite: MMBio 393 or concurrent enrollment.
Laboratory to accompany MMBio 393; medical laboratory techniques in immunohematology and coagulation theory.

399R. Academic Internship. (1–9:0:40 ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Approved experiential learning.

407. Clinical Microbiology. (4:2:6) W Prerequisite: MMBio 453.
Approaches to laboratory diagnosis of infectious diseases.

417. Medical Parasitology. (3:2:3) F Prerequisite: Biol 100 or equivalent.
Pathogenesis, diagnosis, and epidemiology of human parasitic diseases. Laboratory included.

420. Pathophysiology and Laboratory Diagnosis in Clinical Chemistry. (5:4:2) F Prerequisite: clinical laboratory science program acceptance.
Laboratory diagnosis of disorders involving the major systems of the human body.

421. Laboratory Techniques in Clinical Chemistry and Diagnostic Molecular Biology. (4:0:14) F Prerequisite: concurrent enrollment in MMBio 420.
Medical laboratory techniques in urinalysis, clinical chemistry, and diagnostic molecular genetics.

430. Advanced Cell Biology. (3:3:0) F Prerequisite: Biol 360; bioscience major status.
Molecular genetics, cell biology, and developmental biology.

441. Advanced Molecular Biology. (3:3:0) W Prerequisite: Biol 240, Chem 352.
Molecular biology of gene structure and expression in prokaryotic and eukaryotic organisms.

442. Advanced Molecular Biology Laboratory. (2:0:6) W Prerequisite: Biol 241; MMBio 441 or concurrent enrollment.
Laboratory to accompany MMBio 441.

460. Microbial Genetics. (4:3:3) F, W Prerequisite: MMBio 151.
How DNA governs complex bacterial functions. Classical and modern approaches to gene discovery, including genetic screens, gene mapping, targeted genetic manipulations, and analyzing gene activity.

461. Advanced Bacterial Physiology. (3:3:0) W Prerequisite: Chem 481, MMBio 151.
Principles of prokaryotic physiology, including cell structure and function, gene regulation, and biochemical processes; focusing on the unique aspects of prokaryotic biology.

462. Microbial Ecology. (3:2:3) F Prerequisite: Biol 240, MMBio 151.
Natural history of a microbe; its distribution and abundance. Critical influence of scale and perspective in determining underlying mechanisms.

463. Immunology. (4:3:3) F, W Prerequisite: Biol 240, MMBio 361.
Advanced concepts of immunological processes.

464. Medical Microbiology. (4:3:3) F, W Prerequisite: MMBio 361.
Pathogenesis of diseases in humans caused by bacteria.

465. Virology. (3:3:0) F, W Prerequisite: MMBio 361 or equivalent.
Basic principles of virology, emphasizing selected molecular aspects of virus life cycles and disease processes.

466. Virology Laboratory. (1:0:3) F, W Prerequisite: MMBio 361; 465 or concurrent enrollment.
Laboratory exercises illustrating in vitro behavior of selected viruses. Developing laboratory skills for virus studies.

490R. Molecular Biology Seminar. (1:1:0 ea.) F, W Prerequisite: MMBio 441; senior status.
Critical examination of current literature and research in molecular biology.

491. Concept Applications in Laboratory Medicine. (1:1:0) F Prerequisite: acceptance into clinical laboratory science program.
Case presentations of various medical disorders.

494R. Mentored Research. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: mentor's consent.
Mentored research.

499R. Senior Honors Thesis. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: topic to be cleared with Honors Program and Department of Microbiology and Molecular Biology.

500-Level Graduate Courses (available to advanced undergraduates)

518. Select Pathogens. (2:2:0) F odd yr. Prerequisite: MMBio 453 or equivalent.
Current literature in special pathogens.

551R. Current Topics in Microbiology and Molecular Biology. (1–3:Arr.:0 ea.) On dem.
Readings from current literature on a specific topic; student presentations and discussion.

554. Molecular Virology. (2:2:0) Prerequisite: MMBio 354, 454; or equivalents.
Molecular mechanisms of virus architecture, attachment and entry pathways, replication strategies, oncogenesis, evolution, and mechanisms of pathogenesis.

557. Genes and Cancer. (2:2:0) W odd yr. Prerequisite: MMBio 441 or equivalent.
Molecular basis of human cancers, emphasizing oncogenes, tumor suppressor genes, chromosomal instability, hereditary cancers, chemical and physical carcinogens, and viral carcinogenesis.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Microbiology and Molecular Biology Faculty

Professors

Anderson, Shauna C. (1974) AS, Ricks Coll., 1965; BS, Brigham Young U., 1967; MS, U. of Utah, 1973; PhD, U. of Washington, 1984.
Bradshaw, William S. (1970) BA, Harvard U., 1963; PhD, U. of Illinois, 1968.
Harker, Alan R. (1994) BS, PhD, U. of Utah, 1976, 1982.
Johnson, F. Brent (1972) BS, MS, PhD, Brigham Young U., 1966, 1967, 1970.
Murray, Byron K. (1983) AS, Ricks Coll., 1964; BS, MS, PhD, Brigham Young U., 1966, 1969, 1971.
Nielsen, Brent L. (2000) BS, Brigham Young U., 1980; PhD, Oregon State U., 1985.
O'Neill, Kim L. (1992) BSc, DPhil, New U. of Ulster, Northern Ireland, 1984, 1986.
Robison, Richard A. (1991) BS, MS, PhD, Brigham Young U., 1978, 1980, 1988.

Associate Professors

Bridgewater, Laura C. (1999) BS, Brigham Young U., 1989; PhD, George Washington U., 1995.
McCleary, William R. (1995) BS, Brigham Young U., 1982; PhD, U. of California, Berkeley, 1990.

Assistant Professors
Adams, Byron J. (2003) BS, Brigham Young U., 1993; PhD, U. of Nebraska, 1998.
Erickson, David (2006) BS, Lethbridge U., Canada, 1999; PhD, U. of Calgary, Canada, 2003.
Evans, R. Paul (1987) BS, Brigham Young U., 1995; PhD, Medical Coll. of Virginia, 1983.
Griffitts, Joel (2006) BS, Stanford U., 1999; PhD, U. of California, San Diego, 2004.
Lin, Chin-Yo (2005) BS, Brigham Young U., 1995; PhD, Harvard U., 2001.
Wilson, Eric (2004) BS, MS, Utah State U., 1990, 1994; PhD, Montana State U., 2000.

Teaching Professor
Cockayne, Susan (1982) BS, MS, U. of Utah, 1972, 1979; PhD, Brigham Young U., 1990.

Associate Teaching Professor
Breakwell, Donald P. (2001) BS, Brigham Young U., 1986; MS, PhD, Purdue U., 1988, 1992.

Assistant Teaching Professor
Burnett, Sandra (2004) BA, MS, Utah State U., 1992, 1993; PhD, U. of Kentucky, 2000.

Part-time Faculty
Gordon, Jan
Hodson, Kristine
Poulsen, Keila
Seeley, Deborah

Adjunct Assistant Professors
Jackson, Paul
Nelson, Jerry

Adjunct Clinical Professors
Freestone, Steven
Lovell, Robert
Thorn, Willes
Urie, Paul

Adjunct Clinical Instructors
Cram, Kelly
Jackson, Patricia
Lindsley, Sherilyn
McMullin, Vivian

Laboratory Support Services
Lee, John D. (1972) BS, MS, Brigham Young U., 1972, 1976.

Emeriti
Beck, Jay V. (1951) BA, MA, Brigham Young U., 1933, 1936; PhD, U. of California, Berkeley, 1940.
Bradshaw, Willard H. (1961) BS, MS, Brigham Young U., 1952, 1953; PhD, U. of California, Berkeley, 1957.
Donaldson, David M. (1955) BS, MS, PhD, U. of Utah, 1950, 1952, 1954.
Jensen, James (1994) BS, MS, Brigham Young U., 1970, 1972; PhD, Auburn U., 1975.
Jensen, Marcus M. (1969) BS, MS, Utah State U., 1952, 1954; PhD, U. of California, Los Angeles, 1961.
North, James A. (1965) BS, MS, Brigham Young U., 1958, 1960; PhD, U. of Utah, 1964.
Sagers, Richard D. (1958) BS, MS, Brigham Young U., 1954, 1955; PhD, U. of Illinois, 1958.
Wright, Donald N. (1969) BS, U. of Utah, 1958; PhD, Iowa State U. of Science and Technology, 1964.

Military Science (Army ROTC)

Major Theodore M. Leblow, Chair
320 ROTC, (801) 422-3601

Admission to Program

Students must be accepted by the Department of Military Science into the program.

The Discipline

The Army Reserve Office Training Corps (ROTC) Leadership Excellence Program is designed to produce highly qualified commissioned officers in the U.S. Regular Army, the U.S. Army Reserve, or the U.S. Army National Guard. Students specialize in the major field of their choice and graduate with the ability to function as a junior executive.

Career Opportunities

Officer in the U.S. Army in the career field of:
- Adjutant General's Corps
- Air Defense Artillery
- Armor
- Aviation
- Chemical Corps
- Engineers
- Field Artillery
- Finance Corps
- Infantry
- Judge Advocate General's Corps
- Medical Service Corps
  - Nurses, doctors, and administrators
- Military Intelligence
- Military Police
- Ordnance Corps
- Quartermaster Corps
- Signal Corps
- Transportation Corps

General Information

Textbooks, Uniforms, and Allowances. All textbooks, uniforms, and training materials are furnished by the U.S. Army. Those in the advanced course receive a $450 to $500 monthly allowance and approximately $800 for participation in the national Leadership Development and Assessment Course for five weeks during the summer between the junior and senior year.

Army ROTC Scholarship Program. Tuition assistance is available on a competitive basis. Senior students in high school may qualify for a four-year scholarship. College students may also qualify for a four-, three-, or two-year scholarship. The scholarship provides for tuition, fees, a textbook allowance, and from $300 to $500 per month (up to ten months per year) for the period of the scholarship. Students who qualify must complete their degree program prior to their thirty-fifth birthday. Contact the Military Science Department for application procedures and specifics.

SMP Program (Simultaenious Membership Program). Students already members of the Army Reserve or National Guard may concurrently participate in ROTC and qualify for additional pay and benefits, to include tuition assistance.

Extracurricular Activities. Army ROTC cadets extend academic and laboratory associations into a variety of extracurricular ROTC activities. Among these are the Ranger Challenge, Army Color Guard, Cannon Crew, annual Military Ball, and many school service projects performed by the corps of cadets.

LDS Missions. Students, including scholarship recipients, who wish to serve a two-year LDS mission may do so most conveniently between their freshman and sophomore years. This

allows students to be on campus during the spring of their sophomore year to facilitate their selection for the advanced course. Interruptions of the program at other times for a mission may be arranged by obtaining individual approval from the professor of military science.

Leadership Laboratory and Course Fee. Each course requires a corresponding leadership lab, which meets on Thursdays for three hours. The labs require physical activity, including: land navigation, mountaineering, rope bridging, marksmanship, and tactical training. Students are also expected to attend physical fitness training and one field training exercise per semester. A course fee of $40 is required of each participating student to cover cadet activity expenses.

Graduation Requirements in Wellness. Students in the Army ROTC Program may complete the Wellness requirement listed in the University Core Summary section of this catalog by participating in the leadership laboratory for eight semesters. Physical education credit may be received if the student enrolls in ExSc 143R.

Program of Instruction. The ROTC Leadership Excellence Program is designed to produce commissioned officers for the United States Army. It has been described as the best leadership program in the nation. Training is experiential and demands that students practice leadership skills while completing their baccalaureate degree in their chosen course of study. Ultimately, students become qualified to serve as commissioned officers in the Regular Army, National Guard, or Army Reserve. Upon graduation and follow-on training, these officers immediately become the leaders of soldiers deployed abroad or at home in defense of the United States and her values. After graduation it is possible for Reserve or Guard officers to fulfill their military obligation and pursue a civilian career simultaneously. Following the completion of service, BYU ROTC graduates often become effective leaders in their community, business, and church endeavors for the balance of their lives.

Program Requirements

1. The traditional Army ROTC Leadership Excellence Program extends over a four-year period compatible with normal progression through four years of college. It consists of two phases: a two-year basic course during the freshman and sophomore years and an advanced course designed for completion during the junior and senior years. Also included is a five-week Leadership Development and Assessment Course normally attended in the summer before the senior year. Students may receive academic credit for the first two years of ROTC by attending the month-long Leaders' Training Course (LTC) during the summer before the start of the advanced course.

   Scholarship students and students wishing to participate in the advanced course must pass the Army Physical Fitness Test with a score of 60 points in each event. See an Army ROTC faculty member for more information.

   Two-year program: Qualified veterans or students with placement credit for the basic course or LTC meet requirements for the advanced course. Applicants for this two-year program may be upper-division or graduate students, provided a minimum of four semesters remain at BYU at the time of entry into the program. Students must complete a physical examination and other associated requirements. The professor of military science must approve any exceptions for those seeking to accelerate the advanced course and earn an officer's commission in less than two years.

2. Non-scholarship freshman and sophomore students incur no military obligation. Upon entering the advanced course, students agree to enlist in the U.S. Army Reserve Control Group for a period of eight years; they are then sworn into the reserve and begin to receive the monthly $450 to $500 subsistence allowance.
3. Non-U.S. citizens may participate in the basic course provided they obtain approval from their consulate and the BYU international student division and their travel documents are in order. International students apply for enrollment on a case-by-case basis but cannot participate in the advanced course unless they are pending citizenship. They may not be commissioned as officers until they are U.S. citizens.
4. To receive a commission as a second lieutenant in the U.S. Army, students must earn a baccalaureate degree and complete the advanced course. Those who are in a five-year academic program, such as engineering, may complete their Army ROTC courses at any point before graduation.
5. Upon commissioning, the new second lieutenant incurs an eight-year obligation to the U.S. Army, which may be filled by serving on Active Duty, in the U.S. Army Reserve, National Guard, Individual Ready Reserve (IRR), or various combinations of the above.
6. The basic course comprises the following:
   Mil S 120, 121, 220, 221.
7. The advanced course comprises the following:
   Mil S 320, 321, 420, 421.
8. Professional Military Education (PME): Before being commissioned, each cadet must complete one of the following military history courses during their course of study at BYU:
   Hist 220, 221, 371, 372, 373, 374, 375, 376, 398R.

Note: Courses not specified above may satisfy the requirement but must be approved by the professor of military science.

Minor Military Science (16 hours)

Minor Requirements

Complete the following:
Mil S 320, 321, 420, 421.

Military Science (Army ROTC) (Mil S)

Undergraduate Courses

120. Foundations of Officership. (2:1:3) F
Competencies central to a commissioned officer's responsibilities, emphasizing basic soldier skills, fitness, and time management. Insight into the U.S. Army profession and the officer's role within the army. Lab included. Fee.

121. Basic Leadership. (2:1:3) W
Fundamentals focusing on military life, leadership, and problem solving. "Life skills" lessons include: communications, goal setting, personal fitness, and assertiveness skills. Practical focus on endurance and confidence building. Lab included. Fee.

220. Individual Leadership Studies/Leadership and Teamwork 1. (3:2:3) F
Direct leadership experience at the individual and small-unit level. Communication through briefings; learning to influence, plan, and organize on an individual and fire-team level. Lab included. Fee.

221. Individual Leadership Studies/Leadership and Teamwork 2. (3:2:3) W
Theoretical and actual leadership experience involving understanding how to build teams, influence, communicate, make decisions, solve problems, plan, and organize. Strong focus on building character. Lab included. Fee.

320. Adaptive Team Leadership. (4:3:3) F
Adaptive leadership skills as presented with the demands of leadership rolls in simulated tactical and garrison situations. Cadets receive feedback on leadership abilities. Lab included. Fee.

321. Leadership Under Fire. (4:3:3) W
Using intense real-world leadership situations to build skills in leading small units, decision making, persuasion, and motivation when "under fire." Final preparation and evaluation prior to attendance at Leader Development and Assessment Course (LDAC). Lab included. Fee.

325R. Staff Organization and Operations. (1–2:0:Arr. ea.) F, W, Sp
Prerequisite: enrollment in military science.
Special project staff work for joint Army/Air Force campus ceremonies, leadership labs, field training exercises, and training camps. Lab. Fee.

420. Developing Adaptive Leaders. (4:3:3) F
Developing proficiency in planning, executing, and assessing operations; functioning on a staff; and providing feedback to subordinates with situational real-world opportunities to assess risk, make decisions, and coach others. Emphasizes leadership ethics. Lab included. Fee.

421. Leadership in a Complex World. (4:3:3) W
Dynamics of leading military operations. Subjects include military law, principles of war, operations, training, and logistics. Presented in context of modern battlefield. Culminates with commission as an officer in the U.S. Army. Lab included. Fee.

425R. Ranger Preparation. (2:1:5) F
Participation in Army ROTC Ranger Challenge program. Advanced military training with practical application of skills taught in Mil S 120–421.

Military Science Faculty

Professor of Military Science
Leblow, Theodore M., MAJ (2006) BS, U. of Oregon, 1992; MBA, Touro U., 2004.

Assistant Professors of Military Science
Austin, Daniel J., MAJ (2005) BS, Brigham Young U., 1988.
Thompson, Scott D., CPT (2006) BS, U. of Utah, 1999.
Weisler, Gregory A., MAJ (2001) BBA, Prairie View A&M U., 1987; MA, Baylor U., 1994.
Williams, Philip A., CPT (2007) BA, U. of California, Davis, 2001.

Modern Near Eastern Studies

See International and Area Studies.

Mongolian

See Center for Language Studies.

School of Music

Dale E. Monson, Director
C-550 HFAC, (801) 422-3083
www.music byu.edu

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777
www.ofac.byu.edu

Admission to Degree Program

Enrollment in the School of Music's degree programs is limited. Prospective majors must pass an audition and aural skills exam. Please consult the General Information section below and visit the college advisement center for details.

The Discipline

The School of Music respects and celebrates the historic position of music at the heart of a liberal education and the gospel. From ancient times, music has proven its power to enlighten the understanding, strengthen the spirit, and shape character. With this power music civilizes and invigorates any society in which it is cultivated.

In the School of Music the student learns self-discipline through rigorous practice in pursuit of accurate and passionate performance. The student also learns cooperation and mutual sensitivity through ensemble work. In the study of music theory and history, the student comes to hear and appreciate the grammar and syntax of various musical languages, to distinguish nuances of style, and to grasp the ways in which styles intertwine with ideas.

Students learn in a variety of situations: private lessons, small seminars, multimedia labs, and large lectures. These are offered with a holistic approach that embraces academic rigor, intuitive insight, physical grace, and spiritual eloquence.

Career Opportunities

The School of Music leads its students toward careers in performance, studio teaching, music education, creating and managing music projects for the media, recording and sound technology, arts management, music journalism, composition, music therapy, and other music-related professions. Because the music curriculum is rigorous, it is also an excellent pre-professional course of study for those interested in fields as diverse as law, business, library science, or medicine. Whatever degrees one obtains, however, an education in music pertains not only to earning a living through the art but also using the art to enhance one's satisfaction and joy in living.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education. (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Music
BFA	Music Dance Theatre
BM	Jazz Studies
BM	Media Music Studies
BM	Music Composition

BM Music Education
- Emphases:
  - K–12 Choral
  - K–12 Instrumental
  - Elementary Music Specialist

BM Music Performance
- Emphases:
  - Brass
  - Combined Piano and Organ
  - Organ
  - Percussion
  - Piano
  - String
  - Vocal
  - Woodwind

BM Sound Recording Technology

Minor Music

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Music
MM Music

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

1. Admission applications to the School of Music must be received by January 15.
2. All entering students (including transfer students) must pass a performance audition on their major instrument (or voice). Live auditions are held on the last Saturday of January. Students who cannot attend the live audition must submit an audio or VHS videotape for consideration; these tapes must be received by January 15. See the School of Music office (C-550 HFAC) for further details regarding the audition process and requirements, or call (801) 422-3083.
3. All entering students must also pass an aural skills examination. They may take this examination in one of three ways: (1) in a group, at admissions auditions on the last Saturday of January; (2) individually, at the BYU Testing Center (call [801] 422-6129 to schedule times), or (3) individually by proctor at other locations (call the School of Music office to arrange). Students may take the exam as many times as desired to improve their score. (Students who receive a score of 4 or 5 on the aural part of the AP music exam are exempt from this test.)
4. All students who do not have a keyboard emphasis (piano or organ) must complete the piano proficiency requirement by the end of the sophomore year. Students can fulfill this requirement by (1) taking one or both of Music 221, 222 or by (2) taking the Piano Proficiency Exam. (Call the School of Music for more details.)
5. Upon acceptance as a music major, each student must meet with their academic advisor in the college advisement center.
6. Students who pass either part of the AP Music Test with at least a score of 4 should check with the college advisement center before registering for core courses.
7. All major performance instruction must be in the same instrument (or voice).
8. All students registered in Music 161, 260R, 360R, or 460R must complete an examination before a faculty jury on their major instrument (or voice) near the end of each semester of performance study. (With the approval of the faculty, students may elect to substitute a juried public recital for a jury examination.) Students wanting to enter Music 360R or 460R (normally after the sophomore year) must first be granted approval to do so by a faculty jury.
9. All students must fulfill the ensemble requirements of their individual degree programs as described below. Ensemble requirements are filled through a mixture of assigned "Category 1: Approved Large Ensembles" (Music 311R [University Chorale] if placed by audition, 312R [Men's Chorus], 313R [Women's Chorus], 314R [Concert Choir], 315R [University Singers], 325R [Symphonic Band], 326R [Wind Symphony], 337R [Symphony Orchestra], and 338R [Philharmonic Orchestra]) and "Category 2: Other Ensembles Approved for the Major," as allowed in each degree program. Only one approved large ensemble per semester may count toward this requirement, and this ensemble assignment is determined by the student's major instrumental teacher or by choral audition, not by the student. The total ensemble requirement should be completed in consecutive semesters of enrollment beginning the freshman year. Students may not enroll in more than two conducted or directed ensembles per semester.
10. All transfer students must have their previous university work in music evaluated by the appropriate BYU School of Music faculty members to determine what credits will be accepted in the transfer (see the college advisement center for referrals). We subscribe to the policy of the National Association of Schools of Music and carry no obligation to accept upper-division music credits from other member schools.
11. If any course in the School of Music is failed twice, the student is dropped from the major.
12. Students temporarily leaving the School of Music or private studio instruction (for a mission, Study Abroad, etc.) for one or more semesters before their major requirement is completed are required to file a deferment form with the School of Music office (C-550 HFAC). Failure to do so may result in the loss of any music scholarship as well as private studio instruction in the semester or two following the student's return to BYU.
13. It is expected that School of Music students attend at least eight concerts and two School of Music–sponsored lectures each semester, in the process seeking greater exposure to a more diverse variety of music literature and thought. For more information see the "Undergraduate Handbook" published by the School of Music.

BA Music (57–76 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The bachelor of arts degree offers a broad liberal arts education with a concentration in music. It also provides excellent preparation for a variety of professional music careers or graduate work in theory or musicology.

Major Requirements

1. See the college advisement center to obtain information concerning official acceptance into a specific degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
3. Complete one of the following options:
   a. Instrumentalists complete the following:
      Music 260R (8 hours).
   b. Vocalists complete the following:
      Music 161, 260R (6 hours).

4. Complete 1 hour of ensemble each semester for four semesters, including 2–3 hours from Category 1: Approved Large Ensembles (see General Information above) and 1–2 hours from the following Category 2 ensembles:
   Music 316R, 317R, 318R, 319R, 323R, 330R, 331R, 332R, 333R (Vocal Jazz), 333R (Jazz Ensemble), 334R, 335R, 339R, 341R, 342R, 343R, 344R, 345R, 346R, 347R, 348R, 441R.
5. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
6. Complete 3–20 prerequisite hours in foreign language studies as required to meet the GE Languages of Learning requirement. (Prerequisite courses may be waived for those students who have equivalent language experience.) ASL may not be used.
7. Complete one course from a GE Arts or Letters requirement outside music (in addition to the GE requirement) or one humanities course approved by faculty advisor.
8. Complete two of the following music elective courses:
   Music 203, 204, 206, 481, 483, 500, 503, 581, 583, 595, 596.

*Hours include courses that may fulfill university core requirements.

BFA Music Dance Theatre (76.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
   Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
   Music 260R.
7. Complete 4 hours of the following:
   Music 360R.
8. Complete the following:
   Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 390R.
9. Complete the following:
   TMA 114, 121, 123, 124, 223, 229, 267, 421, 427.
10. Complete the following MDT Seminar courses:
    Music 328.
    Dance 328.
    TMA 328.
11. Complete the following History of Music Dance Theatre courses:
    Music 300.
    Dance 300.
    TMA 300.
12. Complete the following Senior Performance Project courses:
    Music 426.
    Dance 426.
    TMA 426.
13. Complete 9.5 hours of electives from the following music, dance, or theatre courses:
    Music 186, 319R, 360R, 363, 386R, 399R, 402A,B, 472.
    Dance 335, 340R, 362, 363, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429, 443R, 515R.

*Hours include courses that may fulfill university core requirements.

BM Jazz Studies (79 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The bachelor of music degree in jazz studies prepares the student with a broadbased music preparation and specialized course work leading to graduate studies in jazz or a career in jazz-related performing, arranging, or studio teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present two recitals: Music 249R should be the culmination to Music 260R, and Music 349R should be taken concurrently with the second semester of Music 360R. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete one of the following options:
   Instrumentalists complete the following:
   Music 260R (8 hours).
   Vocalists complete the following:
   Music 161, 260R (6 hours).
5. Complete 4 hours of the following:
   Music 360R.
6. Complete at least 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for four semesters.
7. Complete 4 hours of the following:
   Music 333R, 334R; 347R (up to one semester).
8. Complete four semesters of the following:
   Music 331R, 335R.
9. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
10. Complete the following:
    Music 186, 284, 384, 391, 394, 468, 485.
11. Complete 5 hours of music electives. Music 203, 210R (finale section), and 286 are recommended. See faculty advisor.

Recommended Courses

The following are recommended jazz-related GE courses:
Music 204.
Phscs 167.

BM Media Music Studies (75 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

A major in media music studies prepares the student for music industry opportunities in creating and managing music for the media (radio, TV, records, film). The program combines rigorous grounding in traditional repertoires with preprofessional course work and project experience in current industry models and musical styles.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into the degree program.
2. Present a juried recital (Music 349R) during the junior year.

   Recital: Enroll in 349R (0.0 credit hours) for the semester during which a recital is to be presented. Consultation with the division coordinator is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete one of the following options:
   Instrumentalists
   Music 260R (8 hours).
   Vocalists
   Music 161, 260R (6 hours).
5. Complete 1 hour of ensemble each semester for four semesters, including 2–3 hours from Category 1: Approved Large Ensembles (see General Information above) and 1–2 hours from the following Category 2 ensembles:
   Music 316R, 317R, 318R, 319R, 323R, 330R, 331R, 332R, 333R (Vocal Jazz), 333R (Jazz Ensemble), 334R, 335R, 339R, 341R, 342R, 343R, 344R, 345R, 346R, 347R, 348R, 441R.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following specialized courses:
   Music 186, 286, 386R, 389.
8. Complete 4 hours of the following:
   Music 399R.
9. Complete 8 hours from the following:
   Music 188, 251, 284, 287, 351, 352, 355R, 391, 489.
   TMA 102.

   Note: Music 251, 355R, 489, and TMA 102 are strongly recommended.
10. Complete 2 hours from the following preprofessional instruction:
    Music 360R—songwriting
    Music 360R—synthesizer
11. Complete 6 hours from the following:
    Music 203, 204, 210R (finale section), 288, 481, 482, 483, 485.

*Hours include courses that may fulfill university core requirements.

BM Music Composition (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

The BM in composition degree program teaches young composers to write with modern and experimental music vocabularies (for artistic expression) as well as historic vocabularies (for accompanying theatrical or cinematic productions), write for diverse color combinations (including orchestral and electroacoustic), and recruit and rehearse players to perform their music.

The music composition major prepares the student for graduate study in composition and theory or may lead to a professional career in composing, arranging, or related fields.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried composition recital (Music 449R) during the senior year.

   Recital: Enroll in 449R (1 credit hour) for the semester during which a recital is to be presented. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete one of the following options:
   a. Instrumentalists complete the following:
      Music 260R (8 hours).
   b. Vocalists complete the following:
      Music 161, 260R (6 hours).
5. Complete 1 hour of ensemble each semester for four semesters, including 2–3 hours from Category 1: Approved Large Ensembles (see General Information above) and 1–2 hours from the following Category 2 ensembles:
   Music 316R, 317R, 318R, 319R, 323R, 330R, 331R, 332R, 333R (Vocal Jazz), 333R (Jazz Ensemble), 334R, 335R, 339R, 341R, 342R, 343R, 344R, 345R, 346R, 347R, 348R, 441R.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following lower-division composition courses:
   Music 188, 287, 288.
8. Complete 8 hours of the following upper-division composition seminar:
   Music 387R.
9. Complete the following:
   Music 481, 483, 581, 583.
10. After consulting with faculty advisor, complete 4 hours of music electives.

BM Music Education: K–12 Choral Emphasis

(87 hours, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A degree in music education prepares the student for K–12 licensure as a public school music teacher with a choral emphasis. The degree program is a composite of music and education. Graduates may obtain a teaching position, pursue graduate work, or use the degree as professional preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center and enroll in Music 176 winter semester or summer term. This course is prerequisite to official acceptance into music education.
2. Proficiency requirements: All professional education courses (below) and Music 260R, 262, 263, and 363 credits **must be completed before student teaching** (Sc Ed 476R). Twenty minutes of solo performance time and ten minutes of chamber music performance time are required, which may be accomplished through master classes, recitals, juries, or in-class performances in Sc Ed 276R and 476R. Students opting for a juried recital must register for Music 349R.
3. Complete the following lower-divison music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.
4. Complete the following:
   Music 161, 260R (6 hours).
5. Music education majors must enroll in at least 1 hour of large ensemble each semester for seven semesters within student's area of specialization. At least 1 hour must be the 311R evening section.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following:
   Music 176, 276, 363, 374, 376A,B, 482.
8. Complete the Professional Education Component:
   a. Complete the following:
      Sc Ed 276R, 350, 353, 375.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Sc Ed 375.

   b. Complete 12 hours of student teaching:
      Sc Ed 476R.

BM Music Education: K–12 Instrumental Emphasis

(92 hours, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A degree in music education prepares the student for K–12 licensure as a public school music teacher with an instrumental emphasis. The degree program is a composite of music and education. Graduates may obtain a teaching position, pursue graduate work, or use the degree as professional preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center and enroll in Music 176 winter semester or summer term. This course is prerequisite to official acceptance into music education.
2. Proficiency requirements: All professional education courses (below) and Music 260R and 360R requirements in a woodwind, brass, string, or percussion instrument must be completed before student teaching (Sc Ed 476R). Twenty minutes of solo performance time and ten minutes of chamber music performance time are required, which may be accomplished through master classes, recitals, juries, or in-class performances in Music 276R and 476R. Students opting for a juried recital must register for Music 349R.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 4 hours of the following:
   Music 360R.
6. Music education majors must enroll in at least 1 hour of large ensemble each semester for seven semesters. Those who play woodwind, brass, or percussion instruments must enroll in one semester of marching band, which may be counted toward the 7-hour large ensemble requirement if it is completed after the student has been officially accepted as a degree candidate in instrumental music education (after freshman year).
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 176, 276, 372A,B, 373A,B, 374, 375A,B, 377A,B.

   Note: Percussionists complete Music 273A,B instead of 374.
9. Complete the Professional Education Component:
   a. Complete the following:
      Sc Ed 276R, 350, 353, 375.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Sc Ed 276R.

   b. Complete 12 hours of student teaching:
      Sc Ed 476R.

BM Music Education: Elementary Music Specialist Emphasis (117.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

A five-year program, the degree offers a dual major in elementary music education and elementary education. It will also prepare the student for licensure as an elementary classroom teacher and as an elementary music specialist. Graduates may obtain a teaching position in either area or a combination of both, pursue graduate work, or use the degree as preparation for other fields of endeavor.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 235, 293, 294, 295, 296, 297, 298.

   Note: Music 235 must be a choral section.
3. Complete one of the following options:
   Instrumentalists
   Music 111R.
   Vocalists
   Music 161.
4. Complete 6 hours of the following in your major instrument or voice:
   Music 260R.
5. Complete at least 1 hour of large ensemble each semester for four semesters. Piano and vocal emphasis majors should participate in choral ensembles. At least one choral ensemble experience is recommended for instrumental emphasis majors.
6. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
7. Complete the following:
   Music 271, 272, 371, 471.

8. See the Education Advisement and Certification Office for the application procedure for official acceptance into elementary education and complete the professional education component.

*Hours include courses that may fulfill university core requirements.

BM Music Performance: Brass Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 12 hours of the following:
   Music 460R.
6. Complete 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 368, 405.
9. Complete 4 hours from the following:
   Music 331R, 341R.
10. Complete 5 hours of music electives (Music 407 is recommended). See faculty advisor.

BM Music Performance: Combined Piano and Organ Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following divided between piano and organ:
   Music 260R.
5. Complete 8 hours of the following divided between piano and organ:
   Music 360R.
6. Complete 1 hour of ensemble each semester for six semesters, including 2 or 4 hours from Category 1: Approved Large Ensembles (see General Information above) and 2 or 4 hours of the Category 2 ensemble Music 344R; each 2 hours of 344R must be taken in consecutive fall and winter semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 166, 264, 265, 364, 365, 366, 466R.
9. Complete 2 hours of the following:
   Music 470R.
10. Complete the following:
    Music 469.
11. Complete three courses from the following:
    Music 403A,B, 404A,B.

BM Music Performance: Organ Emphasis (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.

3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 4 hours of the following:
   Music 360R.
6. Complete 6 hours of the following:
   Music 460R.
7. Complete 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for four semesters. The Category 2 ensemble Music 344R may substitute for 2 of these 4 hours, but the 2 hours must be in consecutive fall and winter semesters.
8. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
9. Complete the following:
   Music 166, 264, 265, 364, 366, 404A,B, 466R (twice).

   Note: Two semesters of Music 466R must be taken in consecutive winter and fall semesters.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete the following:
    Music 469.
12. Complete one course from the following:
    Music 481, 483.

BM Music Performance: Percussion Emphasis
(76 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 12 hours of the following:
   Music 460R.
6. Complete 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 273A,B, 405.
9. Complete 5 hours from the following:
   Music 330R, 331R, 345R.
10. Complete 5 hours of music electives. See faculty advisor.

BM Music Performance: Piano Emphasis (78 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The keyboard performance degree prepares students for professional work as performers and studio teachers. The degree includes a strong pedagogy emphasis, including supervised teaching. Many performance majors continue their studies on the graduate level to further prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 249R) during the sophomore year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 249R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 4 hours of the following:
   Music 360R.
6. Complete 6 hours of the following:
   Music 460R.
7. Complete 1 hour of ensemble each semester for six semesters, including 2 or 4 hours from Category 1: Approved Large Ensembles (see General Information above) and 2 or 4 hours of the Category 2 ensemble Music 344R; each 2 hours of 344R must be taken in consecutive fall and winter semesters.
8. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
9. Complete the following:
   Music 264, 265, 364, 365, 403A,B.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete the following:
    Music 469.
12. Complete 4 hours of the following:
    Music 115, 116R, 260R (organ).
13. Complete one course from the following:
    Music 481, 483.

BM Music Performance: String Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 12 hours of the following:
   Music 460R.
6. Complete 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for eight semesters:
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 369 (A, B, or C depending on instrument), 406, 469.
9. Complete one course from the following:
   Music 405, 407.
10. Complete 2 hours of the following:
    Music 470R.
11. Complete 4 hours from the following:
    Music 331R, 343R, 346R.

Recommended Electives

Music 462R, 473.

BM Music Performance: Vocal Emphasis (76 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The vocal performance degree program prepares students for professional work as performers and studio teachers. The degree includes a strong pedagogy emphasis, including supervised teaching. Many students in this program continue their studies on the graduate level to further prepare for a performing career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
3. Complete the following:
   Music 161, 260R (6 hours).
4. Complete 8 hours of the following:
   Music 360R.
5. Perform a juried junior recital (Music 349R) and a juried senior recital (Music 449R).

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in Music 360R is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.
6. Complete 1 hour of ensemble each semester for eight semesters, including 2–6 hours from Category 1: Approved Large Ensembles (see General Information above) and 2–6 hours of the following Category 2 ensembles:
   Music 316R, 317R, 318R.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 363, 402A, 472.
9. Complete 8 hours from the following:
   Fren 101, 102.
   Germ 101, 102.
   Ital 101, 102.

Recommended Electives

Dance 164.
Music 259, 261.
Phscs 167.

Students intending to enter graduate school in voice should complete:
Fren 101
Germ 101.
Ital 101.

BM Music Performance: Woodwind Emphasis (77 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this emphasis.

The bachelor of music degree in performance prepares the student for professional work as a performer, a studio teacher, or a combination of both. Some will pursue advanced work on the graduate level to prepare for a performance career or college teaching.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into a specific degree program.
2. Present a juried recital (Music 349R) during the junior year. A juried senior recital (Music 449R) is also required.

   Recital: Enroll in 349R (0.0 credit hours) or 449R (1.0 credit hour) for the semester during which a recital is to be presented. Concurrent enrollment in appropriate performance instruction is required. A prerecital hearing is required at least three weeks before juried recitals. Contact the Harris Fine Arts Center Scheduling Office (C-358, south lobby of de Jong Concert Hall) for further information.

3. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
4. Complete 8 hours of the following:
   Music 260R.
5. Complete 12 hours of the following:
   Music 460R.
6. Complete 1 hour of Category 1: Approved Large Ensembles (see General Information above) each semester for eight semesters.
7. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
8. Complete the following:
   Music 367, 405.
9. Complete 4 hours from the following:
   Music 331R (saxophone only), 348R.
10. Complete 5 hours of music electives (Music 407 is recommended). See faculty advisor.

BM Sound Recording Technology (77 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Students majoring in sound recording technology prepare for engineering opportunities in the recording industry and related fields such as broadcasting and video sweetening. This degree gives students theoretical and practical experience in the recording of music in an acoustical environment and also includes course work in the digital recording and digital editing procedures that characterize the recording field today. The program combines rigorous grounding in traditional repertoires with preprofessional course work and project experience in recording.

Major Requirements

1. See the college advisement center for the application procedure for official acceptance into the degree program.
2. Complete the following lower-division music core courses:
   Music 193, 194, 195, 196, 197, 198, 221, 222, 235, 293, 294, 295, 296, 297, 298.
3. Complete one of the following options:
   Instrumentalists
   Music 260R (8 hours).
   Vocalists
   Music 161, 260R (6 hours).
4. Complete 1 hour of ensemble each semester for four semesters, including 2–3 hours from Category 1: Approved Large Ensembles (see General Information above) and 1–2 hours from the following Category 2 ensembles:
   Music 316R, 317R, 318R, 319R, 323R, 330R, 331R, 332R, 333R (Vocal Jazz), 333R (Jazz Ensemble), 334R, 335R, 339R, 341R, 342R, 343R, 344R, 345R, 346R, 347R, 348R, 441R.
5. Complete the following upper-division music core courses:
   Music 301, 302, 303, 304, 395.
6. Complete the following specialized courses:
   Music 251, 252, 256, 257, 286, 351, 352.
   Phscs 167.
7. Complete three sections of the following:
   Music 355R (stereo mixing projects, surround mixing projects, sound design).
8. Complete 4 hours of the following:
   Music 399R.
9. Complete 6 hours from the following:
   Music 186, 203, 204, 360R (synthesizer), 386R, 389.
   TMA 102, 568.

*Hours include courses that may fulfill university core requirements.

Minor Music (18 hours)

Minor Requirements

1. Complete the following:
   Music 101, 135, 190.
2. Complete 2 hours of the following:
   Music 160R.
3. Complete 4 hours of performance ensemble.
4. Complete 5 hours of music electives.

Note: Transfer students should see the college advisement center for transferring classes for a minor.

Music (Music)

Undergraduate Courses

A course without the R suffix may not be repeated more than one time to improve a grade. (Repeating a course with the R suffix does not change the original grade.)

101. Introduction to Music. (3:3:0) F, W, Sp, Su Honors also. Prerequisite: nonmusic major status.
Designed to aid nonmusic majors in developing skills needed for listening to music creatively. Emphasis on masterworks of Western music from major style periods.

111R. Basic Vocal Skills. (2:2:0 ea.) F, W, Sp
Class instruction in voice for nonmusic majors.

113. Beginning Piano Techniques 1. (2:2:0) F, W, Sp
Class instruction in piano for nonmusic majors.

114R. Beginning Piano Techniques 2. (2:2:0 ea.) F, W, Sp
Prerequisite: Music 113.
Continuation of Music 113.

115. Basic Organ Skills. (2:2:0) F, W, Sp
Class instruction in organ for nonmusic majors.

116R. Organ Techniques and Literature. (2:2:0 ea.) F, W
Prerequisite: Music 115 or instructor's consent.
Continuation of Music 115.

117. Basic Guitar Skills. (2:2:0) F, W, Sp, Su
Class instruction in guitar for nonmusic majors.

118R. Guitar Techniques and Literature. (2:2:0 ea.) F, W
Prerequisite: Music 117 or instructor's consent.
Continuation of Music 117.

135. Basic Conducting. (2:2:0) F, W, Sp
Fundamental concepts and skills for nonmusic majors.

160R. Performance Study. (0.5–1:0.5:0 ea.) F, W, Sp Prerequisite: nonmusic major status. Audition may be required.
Private or semiprivate instruction. One to two hours of daily practice. Fee.

161. Voice Technique. (2:2:0) F, W Prerequisite: acceptance by audition to the School of Music.
Class instruction in voice technique.

166. Organ Registration. (2:2:0) F Prerequisite: concurrent private or group instruction in organ or instructor's consent.
Organ stops and their application to various performance styles.

176. Careers in Music Education. (1:1:1) W, Su
Examining preschool through college teaching career options in music; seeking a good fit between personal aspirations, attributes, skills, and job requirements. Open to both music majors and nonmajors.

186. Songwriting 1. (2:2:0) F, W Prerequisite: basic music reading and keyboard skills.
Songwriting for present-day music publishing industry; basic songwriting theory; form, content, and style.

188. Composition 1. (2:2:0) W Prerequisite: Music 195 or instructor's consent.
Introduction to principles of recent art music; composition and performance of student works for one to five instruments.

189. Introduction to Music Instrument Digital Interface (MIDI). (2:2:0) Prerequisite: acceptance as a music major.
Overview of computer programs in all aspects of music composition, production; familiarity with worldwide music sites on the network; demonstrations of samplers and electronic sound sources.

190. Music Fundamentals. (2:2:0) F, W, Sp or Su Prerequisite: nonmusic major status. Required for music minor.
Organizational systems of music, their notation and aural patterns.

193. Dictation 1. (1:0:2) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 195, 197.
Development of aural skills through melodic, rhythmic, and harmonic dictation.

194. Dictation 2. (1:0:2) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in Music 196 and 198.
Continuation of Music 193.

195. Music Theory 1. (3:3:0) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 193, 197.
Writing and analysis in diatonic harmony.

196. Music Theory 2. (3:3:0) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in 194 and 198.
Writing and analysis in diatonic and chromatic harmony.

197. Sight Singing 1. (0.5:0:1) F, Sp Prerequisite: acceptance as a music major; concurrent enrollment in Music 193, 195.
Rhythm and pitch-reading skills using two systems of counting and melodic solfeggio singing with hand signs.

198. Sight Singing 2. (0.5:0:1) W, Su Prerequisite: C– or higher in Music 193, 195, 197; concurrent enrollment in Music 194, 196.
Continuation of Music 197.

200. Elements of Music. (1:1:0) F, W, Sp Prerequisite: nonmusic major status and concurrent ensemble enrollment.
Exploration of basic musical processes, structures, styles, and common principles of music literature through lectures, demonstrations, and analytical experiences.

201. Civilization: Music 1. (3:3:0) F, Sp or Su on dem. Honors also. Prerequisite: ability to read musical notation.
History of Civilization from Greek antiquity to Renaissance, primarily from perspective of musical literature and the arts; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. Civilization: Music 2. (3:3:0) W, Sp or Su on dem. Honors also. Prerequisite: ability to read musical notation.
History of Civilization from baroque to present, primarily from perspective of musical literature and the arts; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

203. World Music Cultures. (3:3:0) F, W
Traditional music of selected cultures of Asia, Oceania, Africa, Europe, and the Americas, including both folk and art music traditions.

204. History of Jazz. (3:3:0) F, W, Sp, Su Honors also.
Fostering an understanding and appreciation of jazz, America's unique contribution to the world's music.

206. Survey of Latin American Music. (3:3:0) On dem.
Historical survey of folk music and art music indigenous to countries of the Caribbean and Central and South America.

210R. Topics in Music. (1–3:Arr.:Arr. ea.) On dem.
Topics vary.

221. Functional Piano Skills 1. (2:2:0) F, Sp Prerequisite: piano skills determined by entrance diagnostic exam; music major status.
Provides music majors with basic keyboarding ability in such areas as sight reading, technique, harmonization, and score reading.

222. Functional Piano Skills 2. (2:2:0) W, Su Prerequisite: Music 221; music major status.
Continuation of Music 221.

235. Conducting Techniques. (2:2:0) F, W, Sp Prerequisite: music major status, C– or higher in Music 194, 196, 198.
Physical techniques and musical understanding required to conduct a performance ensemble.

236. Fundamentals for Choir Directors. (2:2:0) W Prerequisite: Music 135 or 235 with grade of B– or better; concurrent enrollment in Music 135 or 235 with instructor's consent.
Choral repertoire, score preparation, vocal production, vowels, consonants, intonation, blend, balance, warm-up, rehearsal techniques, and teaching basic music skills.

249R. Sophomore Recital. (0:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 260R and instructor's consent.
Prerecital hearing required at least three weeks before juried recitals. Fee.

251. Audio: Basic Principles 1. (2:2:2) F Prerequisite: Math 110 or equivalent; Phscs 167.
Basic recording studio procedures and principles. Foundation course for major in sound recording technology.

252. Audio: Basic Principles 2. (2:2:2) W Prerequisite: Music 251.
Continuation of basic recording studio procedures and principles, emphasizing signal path concepts.

256. Recording Studio 1. (2:2:2) F Prerequisite: Math 110 or equivalent, Phscs 167, Music 251, and music major status or instructor's consent.
Basic recording theory, operational techniques, and procedures.

257. Recording Studio 2. (2:2:2) W Prerequisite: Music 256.
Continuation of Music 256.

259. Psychology of Performance. (2:2:0) F, W
Psychological skills for performers. Topics include audition preparation, conquering stage fright, preventing overuse injury, attention control, creativity. Skills applicable to any performance situation.

260R. Performance Study. (1–2:1:1 ea.) F, W, Sp
Private instruction and studio class. From one to four hours of daily practice. Fee.

261. Contemporary Vocal Techniques. (2:2:1) W Prerequisite: Music 161 or instructor's consent.
Contemporary vocal styles and techniques, including pop/belt, stage, and studio singing.

264. Keyboard Foundations 1. (2:2:0) F Prerequisite: Music 194, 196, 198, 260R.
Sight-reading, harmonization, improvisation, and technique at the keyboard.

265. Keyboard Foundations 2. (2:2:0) W, Sp Prerequisite: Music 264.
Continuation of Music 264.

271. Musicality in the Elementary School. (3:2:1) F Prerequisite: Music 194, 196, 198; or concurrent enrollment.
Survey of authentic folk song and art music tonal systems and structures; their use in developing musical intuition through singing, movement, listening, and playing instruments.

272. Developing Children's Musicality, Grades K–2. (3:1:2) W Prerequisite: Music 271.
Literature-based curriculum design and planning, grades K–2. Issues of pure intonation and vocal/aural development. Microteaching in a demonstration school.

273A. Percussion Techniques. (0.5:1:0) F Prerequisite: percussion performance major or music education major with percussion emphasis.
Accessory and concert percussion instruments and related performance literature.

273B. Percussion Techniques. (0.5:1:0) W Prerequisite: Music 273A or instructor's consent.
Introduction to world percussion, drum set, and marching percussion techniques.

276. General Music Methods. (3:3:0) W Prerequisite: Music 194, 196, 198 or concurrent enrollment; Sc Ed 276R.
Methods and materials for teaching general music, K–12. Cognitive development and learning styles as a basis for instructional strategies. Includes Dalcroze, Orff, and Kodaly.

284. Jazz Improvisation 1. (2:2:1) F, W Prerequisite: Music 194, 196, 198, or instructor's consent.
Beginning improvisation: theory and technique.

286. Introduction to the Music Business. (2:2:0) W Prerequisite: music major status.
The music business and its models. Guided research topics for all musicians.

287. Electronic Music Composition. (2:2:1) F Prerequisite: Music 188 or instructor's consent.
Introduction to composition with digital audio and MIDI synthesis and sequencing.

288. Composition 2. (2:1:2) W Prerequisite: Music 287.
Invention and exploration of sound, control of multivoiced textures and larger forms, and recent twentieth-century art music.

290. Music Theory for MDT Majors. (4:3:2) W Prerequisite: Music 113 and music dance theatre (MDT) major status.
Music theory, sight singing, aural dictation, and keyboard harmony.

293. Dictation 3. (1:0:2) F, Sp Prerequisite: C– or higher in Music 194, 196, *and* 198; concurrent enrollment in Music 297 and *same* section of 295.
Continuation of Music 194.

294. Dictation 4. (1:0:2) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 298 and *same* section of Music 296.
Continuation of Music 293.

295. Music Theory 3. (3:3:0) F, Sp Prerequisite: C– or higher in Music 194, 196, *and* 198; concurrent enrollment in Music 297 and *same* section of 293.
Extended chromatic techniques and introduction to twentieth-century concepts.

296. Music Theory 4. (3:3:0) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 298 and *same* section of 294.
Set theory, serialism, and late twentieth-century concepts.

297. Sight Singing 3. (0.5:0:1) F, Sp Prerequisite: C– or higher in Music 194, 196, *and* 198; concurrent enrollment in Music 293, 295.
Continuation of Music 198.

298. Sight Singing 4. (0.5:0:1) W, Su Prerequisite: C– or higher in Music 293, 295, 297; concurrent enrollment in Music 294, 296.
Continuation of Music 297.

300. History of Music Dance Theatre. (1:3:0) F Prerequisite: Music 290, Dance 243R, 244R, TMA 114; concurrent enrollment in Dance 300, TMA 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Music in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

301. Survey of Music Literature 1. (2:2:0) F, Sp Prerequisite: Music 194, 196, 198; 201, 202, or equivalent.
Survey of musical genres, forms, styles, and performance practices from antiquity through the sixteenth century.

302. Survey of Music Literature 2. (2:2:0) W, Su Prerequisite: Music 194, 196, 198; 201, 202, or equivalent.
Survey of musical genres, forms, styles, and performance practices from the baroque through the early classic.

303. Survey of Music Literature 3. (2:2:0) F, Sp Prerequisite: Music 294, 296, 298; 201, 202, or equivalent.
Survey of music genres, forms, styles, and performance practices from the high classic through the romantic.

304. Survey of Music Literature 4. (2:2:0) W, Su Prerequisite: Music 294, 296, 298; 201, 202, or equivalent.
Survey of musical genres, forms, styles, and performance practices of the twentieth century.

311R. University Chorale. (1:0:3 ea.) F, W, Sp No audition required.

312R. Men's Chorus. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

313R. Women's Chorus. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

314R. Concert Choir. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

315R. University Singers. (1:0:5 ea.) F, W Prerequisite: audition and director's consent.

316R. Opera Workshop. (1:6:0 ea.) F Prerequisite: audition; instructor's consent.
Training and experience in operatic choral music and stage movement.

317R. Opera Ensemble. (1–3:6:0 ea.) F, W, Sp Prerequisite: audition; instructor's consent.
Training and experience in operatic excerpts, chamber opera, and full productions for operatic soloists.

318R. Music Theatre Ensemble. (1:0:5 ea.) F, W, Sp Prerequisite: audition and director's consent.
Auditioned chorus or orchestra for opera or music dance theatre productions.

319R. Music Theatre Performance. (1–3:0:0 ea.) F, W, Sp Prerequisite: audition and director's consent.
Participation as soloists, coaches, or directors in music dance theatre or opera performances.

321R. University Orchestra. (1:2:0) F, W
No audition required. Does not satisfy large ensemble requirement for majors.

322R. University Band. (1:2:0) W
No audition required. Does not satisfy large ensemble requirement for majors.

323R. Marching Band. (1:0:6 ea.) F Prerequisite: audition or director's consent.

324R. Cougar Band. (1:0:6 ea.) W Prerequisite: audition or director's consent.

325R. Symphonic Band. (1:0:4 ea.) F, W Prerequisite: audition.

326R. Wind Symphony. (1:0:4 ea.) F, W Prerequisite: audition.

328. Junior Music Dance Theatre Seminar. (1:2:0) F Prerequisite: music dance theatre BFA major status; TMA 114, 229; concurrent enrollment in Dance 328, TMA 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

329R. Folk Ensemble. (1:0:4 ea.) F, W, Sp Prerequisite: director's consent.
Traditional bluegrass ensemble. Performs with BYU International Folk Dancers.

330R. Steel Band. (1:0:2 ea.) F, W Prerequisite: director's consent.

331R. Jazz Combos. (1:1:2 ea.) F, W Prerequisite: audition.

332R. Show Band. (1:0:6 ea.) F, W Prerequisite: audition.
Contemporary and traditional show music (Young Ambassadors) and ethnic music (Lamanite Generation).

333R. Jazz Ensemble. (1:0:4 ea.) F, W, Sp Prerequisite: audition.
Includes Jazz Ensemble (big band), Jazz Lab Band (entry-level big band), and Vocal Jazz Ensembles.

334R. Synthesis. (1:0:4 ea.) F, W Prerequisite: audition.

335R. Jazz Legacy Band. (1:2:0 ea.) F, W Prerequisite: audition.
Traditional ensemble specializing in early jazz. Band occasionally tours off campus.

337R. Symphony Orchestra. (1:0:4 ea.) F, W Prerequisite: audition.

338R. Philharmonic Orchestra. (1:0:4 ea.) F, W Prerequisite: audition.

339R. Chamber Orchestra. (1:0:2 ea.) F, W Prerequisite: audition.

340R. Harp Ensemble. (0.5:1:0 ea.) F, W Prerequisite: director's consent.

341R. Brass Chamber Music. (1:1:2 ea.) F, W, Sp Prerequisite: director's consent.

342R. Early Music Ensemble. (1:1:3 ea.) F, W Prerequisite: director's consent.

343R. Guitar Ensemble. (1:1:2 ea.) F, W Prerequisite: director's consent.

344R. Keyboard in Ensemble. (1:0:3 ea.) F, W, Sp Prerequisite: Music 260R or instructor's consent.
Accompanying and ensemble performance.

345R. Percussion Ensemble. (1:0:2 ea.) F, W Prerequisite: director's consent.

346R. String Chamber Music. (1:1:2 ea.) F, W, Sp Prerequisite: director's consent.

347R. Vocal Point. (1:5:0 ea.) F, W Prerequisite: director's consent.

348R. Woodwind Chamber Music. (1:1:2 ea.) F, W, Sp Prerequisite: director's consent.

349R. Junior Recital. (0:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 360R or 460R and instructor's consent. Prerecital hearing required at least three weeks before juried recitals. Fee.

351. Audio Applications 1. (2:2:2) F Prerequisite: Music 251, 256, 257, Math 110, Phscs 167.
Advanced concepts in digital sound editing.

352. Audio Applications 2. (2:2:0) W Prerequisite: Music 351.
Advanced concepts in digital sound editing.

355R. Recording Workshop. (1:1:5 ea.) F, W Prerequisite: Music 251 or 257.
Studio projects in multitrack recording for records, broadcast, film, and television.

359R. Performance Study. (1–2:Arr.:Arr. ea.) For those who have completed private instruction requirements for their degree. F, W, Sp Prerequisite: music major status; completion of degree requirements in 260R, 360R, and 460R; instructor's consent.
Private instruction and studio class requiring from one to four hours of daily practice. Fee.

360R. Performance Study. (1–2:1:1 ea.) F, W, Sp Prerequisite: music major status; jury approval.
Private instruction and studio class. From one to four hours of daily practice. Fee.

363. Vocal Pedagogy. (3:3:0) F Prerequisite: junior standing as vocal performance or choral music education major or instructor's consent.
Introduction to physiology, acoustics, and pedagogy of singing.

364. Keyboard Pedagogy. (2:2:1) F Prerequisite: keyboard performance major status or instructor's consent.
Basic pedagogical principles as applied to keyboard instruments.

365. Piano Pedagogy. (2:2:1) W Prerequisite: Music 364.
Preparation for supervised private or group teaching.

366. Organ Pedagogy. (2:2:1) W even yr. Prerequisite: Music 364.
Preparation for supervised private or group teaching.

367. Woodwind Pedagogy. (2:2:1) F odd yr. Prerequisite: woodwind performance major status or instructor's consent.

368. Brass Pedagogy. (2:2:1) F even yr. Prerequisite: brass performance major status or instructor's consent.

369A. String Pedagogy. (2:2:1) F even yr. Prerequisite: instrumental performance major status on violin or viola, or instructor's consent.

369B. String Pedagogy. (2:2:1) On dem. Prerequisite: instrumental performance major status on double bass or instructor's consent.

369C. String Pedagogy. (2:2:1) On dem. Prerequisite: instrumental performance major status on cello or instructor's consent.

370. Guitar Pedagogy. (2:2:1) F odd yr. Prerequisite: instrumental performance major status or instructor's consent.

371. Developing Children's Musicality, Grades 3–5. (3:1:2) F Prerequisite: Music 271, 272.
Continuation of Music 272 for grades 3–5, emphasizing the relationship of classroom literature to choral experience and instrumental musicianship. Microteaching in a demonstration school.

372A. Woodwind Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and to teach woodwind instruments; survey of instructional materials; emphasis on clarinet and saxophone.

372B. Woodwind Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 372A. Emphasis on flute, oboe, and bassoon.

373A. Brass Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and to teach brass instruments; survey of instructional materials; emphasis on trumpet and French horn.

373B. Brass Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 373A. Emphasis on trombone, baritone, and tuba.

374. Percussion Workshop. (1:0:3) F (instrumental education), W (choral education) Prerequisite: Music 194, 196, 198.
Learning to play and teach percussion instruments; survey of instructional materials.

375A. String Workshop. (1:0:3) F Prerequisite: Music 194, 196, 198.
Learning to play and teach string instruments; survey of instructional materials, emphasis on violin and viola.

375B. String Workshop. (1:0:3) W Prerequisite: Music 194, 196, 198.
Continuation of Music 375A. Emphasis on cello and bass.

376A. Choral Practicum. (3:3:0) F Prerequisite: Music 221, 235, 276, 294, 296, 298.
Applied conducting technique, score analysis and preparation, evaluating solo performance, and application of learning theory.

376B. Choral Practicum. (3:3:0) W Prerequisite: Music 221, 235, 276, 294, 296, 298.
Curriculum design, score analysis and preparation, choral arranging, rehearsal techniques, survey of literature, and vocal pedagogy, including treble voice and changing voice; computers and computer-assisted instruction.

377A. Instrumental Practicum. (3:3:0) F Prerequisite: Music 221, 235, 276, 294, 296, 298.
Applied conducting technique, score analysis and preparation, evaluating solo performance, and applying learning theory.

377B. Instrumental Practicum. (3:3:0) W Prerequisite: Music 221, 235, 276, 294, 296, 298.
Curriculum design, evaluating ensemble performance, advanced rehearsal techniques, administering secondary instrumental music programs; computers and computer-assisted instruction.

378. Music for the Elementary Classroom Teacher. (2:2:0) F, W, Sp, Su
Establishing a classroom environment for musical development; emphasis on appropriate songs, activities, resources, and teaching strategies.

384. Jazz Improvisation 2. (2:2:1) W Prerequisite: Music 284 or director's consent.
Intermediate improvisation: theory and technique.

386R. Songwriting 2. (2:2:0 ea.) W Prerequisite: music major status; Music 186.
Projects in advanced songwriting.

387R. Composition 3. (2:1:2 ea.) F, W Prerequisite: Music 222, 288, 294, 296, 298, and junior-level screening.
Composition lessons and seminars in principles of late twentieth-century music.

389. Projects in Music for Media. (2:2:0) F Prerequisite: music major status, Music 186; 295 or instructor's consent.
Introductory projects in scoring for broadcast media, publication, and studio recording.

391. Jazz Keyboard. (2:2:0) W, Sp Prerequisite: Music 222, 294, 296, 298, or instructor's consent.
Lead sheets, chord voicings, and other aspects of jazz performance practice.

394. Jazz Styles and Analysis. (3:3:0) F even yr. Prerequisite: music major status; instructor's consent.
In-depth experience in recognizing and differentiating jazz styles, including analyzing and transcribing solo and ensemble jazz materials.

395. Form and Analysis. (3:3:0) F, W, Sp Prerequisite: C– or higher in Music 293, 295, 297.
Analytical study of forms from the common-practice period, including baroque contrapuntal structures and instrumental forms, classical sonata cycle, and romantic part forms.

399R. Academic Internship. (1–6:Arr.:Arr. ea.) F, W, Sp Su Prerequisite: instructor's consent.
Internship or externship in creative, performing, producing, or teaching applications of major course work.

402A. Vocal Literature. (3:3:0) W Prerequisite: acceptance into 360R or instructor's consent.
Survey of literature with emphasis on art song. Research in area of concentration.

402B. Vocal Literature. (2:2:0) On dem. Prerequisite: acceptance into 360R or instructor's consent.
Continuation of Music 402A with emphasis on opera and oratorio.

403A. Piano Literature. (2:2:0) F Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature. Research in area of concentration.

403B. Piano Literature. (2:2:0) W Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Continuation of Music 403A.

404A. Organ Literature. (2:2:0) F odd yr. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature. Research in area of concentration.

404B. Organ Literature. (2:2:0) W even yr. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Continuation of Music 404A.

405. Chamber Music Literature. (2:2:0) W Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

406. String Literature. (2:2:0) F odd yr. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

407. Symphonic Literature. (2:2:0) On dem. Prerequisite: C– or higher in Music 304; acceptance into 360R or 460R, or instructor's consent.
Survey of literature, including research in field of concentration.

410R. Advanced Topics in Music. (1–3:Arr.:Arr. ea.) On dem. Prerequisite: C– or higher in Music 304; 222, 294, 296, 298, or instructor's consent.
Topics vary.

426. Music Dance Theatre: Senior Performance Project. (1:0:3) F, W Prerequisite: TMA 361; concurrent enrollment in Dance 426, TMA 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

441R. New Music Ensemble. (1:0:1 ea.) F, W Prerequisite: instructor's consent.

449R. Senior Recital. (1:Arr.:Arr. ea.) F, W, Sp Prerequisite: concurrent enrollment in Music 360R, 387R, or 460R, and instructor's consent. Prerecital hearing required at least three weeks before juried recitals. Fee.

460R. Performance Study. (1.5–3:1:1 ea.) F, W, Sp Prerequisite: major in performance; jury approval.
Advanced private instruction and studio class. From three to five hours of daily practice. Fee.

462R. Orchestral Repertoire. (1:1:0 ea.) F Prerequisite: concurrent enrollment in Music 460R or instructor's consent.
Performance instruction in standard orchestral repertoire.

466R. Organ Practicum. (2:2:1 ea.) W odd yr., F odd yr. Prerequisite: Music 166 or organ performance major status. Must be taken in consecutive winter and fall semesters.
Developing various practical skills required of the organist.

468. Jazz Pedagogy. (1:2:0) F and on dem.
Organizing and teaching jazz in the secondary school. Designed for the music educator.

469. Theory and Methods of Studio Teaching. (1:1:0) W Prerequisite: completion of required pedagogy class or instructor's consent.
Applying learning theory and secondary education methods to studio teaching.

470R. Studio Teaching Practicum. (1:1:1 ea.) F, W Prerequisite: completion of required pedagogy class or instructor's consent.
Applying pedagogical principles to teaching.

471. Practicum in Children's Musicality. (3:1:2) W Prerequisite: Music 271, 272, 371.
Pedagogy for grades 6 and beyond. Children's choir development, including arranging and adapting vocal and instrumental music. Extended pre–student teaching in a demonstration school.

472. Supervised Teaching in Voice. (2:1:3) W Prerequisite: Music 363.
Lecture, discussion, and practicum in the methodology of studio voice instruction.

473. Suzuki Methods. (1:1:0) F Prerequisite: completion of required pedagogy class or instructor's consent.
Applying the principles of Shinichi Suzuki to teaching. Emphasis on violin.

481. Orchestration. (3:3:0) F Prerequisite: C– or higher in Music 294, 296, 298.
Scoring for standard orchestral instruments.

482. Choral Arranging. (2:2:0) W Prerequisite: C– or higher in Music 294, 296, 298.
Study of published choral arrangements, as well as techniques for adapting and arranging for choirs.

483. Counterpoint. (3:3:0) F Prerequisite: C– or higher in Music 294, 296, 298.
Eighteenth-century contrapuntal styles and techniques, emphasizing those of J. S. Bach.

485. Jazz Arranging and Composition. (3:3:0) W Prerequisite: Music 295.
Developing concepts and skills related to the orchestration, arranging, and composition of jazz and related contemporary styles of music.

489. Film Scoring. (2:2:0) W Prerequisite: Music 389; instructor's consent.
Introduction to techniques and technology of film scoring.

494R. Independent Readings. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: advising professor's consent as certified by completing a contract obtained from undergraduate studies secretary in E-579 HFAC.

498. Senior Thesis. (3:Arr.:Arr.) F, W, Sp, Su Prerequisite: senior status and faculty advisor's endorsement.

499R. Honors Thesis. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: senior status.

500-Level Graduate Courses (available to advanced undergraduates)

500. Musical Research Techniques. (2:2:0) F, W Prerequisite: graduate status.

501. Music Education Research Techniques. (2:2:0) Su Prerequisite: graduate status.

503. Aesthetics. (3:3:0) F Prerequisite: Music 304 or equivalent.
Fundamental questions of aesthetic theory from classical antiquity to the present, emphasizing musical aesthetics.

505A. Applied Literature. (2:2:1) On dem. Prerequisite: minimum of one enrollment in Music 402–407 or equivalent.
Advanced survey and research of literature.

505B. Advanced Applied Literature. (2:2:1) On dem. Prerequisite: Music 505A.
Intensification and deeper study of Music 505A materials.

506. Choral Literature 1. (2:2:0) F odd yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of choral literature through Beethoven.

507. Choral Literature 2. (2:2:0) F even yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of choral literature from post-Beethoven to the present.

508. Orchestra Literature 1. (2:2:0) W even yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of orchestral literature of the baroque and classical eras.

509. Orchestra Literature 2. (2:2:0) W odd yr. Prerequisite: instructor's consent.
Concentrated analytical study and application of orchestral literature of the romantic era and the 20th century.

510. Band Literature. (2:2:0) W Prerequisite: instructor's consent.
Concentrated study of band literature through analysis and conducting.

532R. Score Preparation and Conducting: Instrumental. (2:2:0 ea.) F Prerequisite: instructor's consent.

533R. Choral Conducting and Development. (2:2:0 ea.) F, W odd yr., Su
Principles and practices of score preparation, conducting, and choral development as elements of choral artistry.

534R. Score Preparation and Direction: Jazz. (2:2:0 ea.) Su odd yr.

560R. Performance Instruction. (1–2:1:0 ea.) F, W, Sp, Su Prerequisite: graduate music student status.
Performance instruction for students not specializing in performance, and for performance students wishing to study secondary instruments. Fee.

570. Music for Elementary School Teachers. (2:2:0) On dem. Prerequisite: Music 371, 471, or elementary music teaching experience.
Experiences in teaching various music activities in the elementary school.

571. Elementary Education Music Pedagogy. (2:2:0) On dem. Prerequisite: Music 371 and equivalent of elementary education teaching minor in music.
Orff, Dalcroze, and Kodaly materials and techniques.

575R. Summer Music Workshops and Clinics. (1–4:Arr.:Arr. ea.)

576. Fundamentals and Techniques of the Marching Band. (2:2:2) For music education majors only. On dem. Prerequisite: Music 294, 296.
Planning, charting, and scoring for marching bands.

581. Twentieth-Century Orchestration. (3:3:0) W Prerequisite: Music 481.
New techniques for standard and new instruments; analysis and listening.

583. Sixteenth-Century Counterpoint. (3:3:0) W Prerequisite: Music 483.
Strict modal counterpoint in sixteenth- century style (Palestrina); includes species, text setting, and motet.

591. Advanced Topics in Keyboard Harmony. (2:2:0) F Prerequisite: instructor's consent.
Topics vary.

595. Score Analysis. (2:2:0) F, Su
Analysis of representative choral and instrumental works from the Renaissance through contemporary styles.

596. Schenker Analysis. (3:3:0) W Prerequisite: Music 303, 395; or equivalent.
Schenker's system of tonal analysis.

599R. Academic Internship. (1–6:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Internship in creative, performing, producing, or teaching applications of major course work.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Music Faculty

Professors

Blackinton, David P. (1980) BM, MM, U. of Michigan, 1964, 1966; DMA, Catholic U. of America, 1975.
Bush, Douglas E. (1978) BA, MM, Brigham Young U., 1972, 1974; PhD, U. of Texas, 1982.
Dabczynski, Andrew (2001) BM, Eastman School of Music, 1976; MA, U. of Connecticut, 1978; PhD, U. of Michigan, 1994.
Dayley, K. Newell (1970) BS, Brigham Young U., 1964; MM, U. of Southern California, 1966; DA, U. of Northern Colorado, 1986.
Durham, Thomas L. (1978) BM, MM, U. of Utah, 1974, 1975; PhD, U. of Iowa, 1978.
Giovannetti, Geralyn (1990) BM, MM, U. of Western Ontario, 1978, 1980; DMA, U. of Michigan, 1990.
Hicks, Michael D. (1985) BM, Brigham Young U., 1980; MM, DMA, U. of Illinois, 1981, 1984.
Hopkin, J. Arden (1990) BM, Brigham Young U., 1971; MM, North Texas State U., 1974; DMA, U. of Rochester, 1978.
Johnson, Steven P. (1987) BA, MA, California State U., Fullerton; 1976, 1979; PhD, U. of California, Los Angeles, 1989.
Jones, Stephen M. (1991) BM, Brigham Young U., 1983; MM, DMA, U. of Cincinnati, 1986, 1989.
Katseanes, Kory (1999) BA, MM, U of Utah, 1976, 1979.
Lowe, Laurence (1993) BM, San Francisco Conservatory, 1980; MM, U. of Rochester, 1981.
Monson, Dale E. (1999) BA, MA, Brigham Young U., 1975, 1976; PhD, Columbia U., 1982.
Peery-Fox, Irene W. (1994) BA, MS, The Juilliard School, 1969, 1972; DMA, Peabody Conservatory of Music, Johns Hopkins U., 1987.
Powley, E. Harrison (1969) BM, MA, PhD, U. of Rochester, 1965, 1968, 1975.
Randall, David M. (1970) BS, Brigham Young U., 1965; MM, Indiana U., Bloomington, 1967; DMA, U. of Iowa, 1970.
Sargent, David H. (1976) BA, MA, Brigham Young U., 1966, 1968; MM, DMA, U. of Illinois, 1969, 1975.
Shumway, Jeffrey L. (1985) BM, Brigham Young U., 1976; MM, The Juilliard School, 1977; DM, Indiana U., 1982.
Smith, C. Raymond (1982) BM, Brigham Young U., 1975; MM, DM, Indiana U., 1976, 1982.
Staheli, Ronald J (1978) BA, Brigham Young U., 1972; MM, DMA, U. of Southern California, 1973, 1977.
Vincent, Lawrence P. (1997) BA, Brigham Young U., 1973; MM, Northern Arizona U., 1977; DMA, U. of Michigan, 1981.

Associate Professors

Anderson, Richard Paul (1972) BA, Arizona State U., 1968; MM, Northwestern U., 1970; DMA, U. of Colorado, 1986.
Asplund, Christian (2002) BM, Brigham Young U., 1988; MA, Mills Coll., 1993; DMA, U. of Washington, 1998.
Belknap, Monte L. (2003) BM, MM, U. of Cincinnati College Conservatory of Music, 1991, 1994.
Boothe, Randall W. (1982) BA, Brigham Young U.—Hawaii, 1975; MM, Brigham Young U., 1979.
Boren, Murray E. (1994) BM, MA, Brigham Young U., 1975, 1977; DMA, City U. of New York, 2001.
Broomhead, Paul G. (1995) BM, MM, Brigham Young U., 1989, 1990.
Brough, Ronald P. (1984) BM, MM, North Texas State U., 1981, 1983; DA, U. of Northern Colorado, 1997.
Brown, David C. (1998) BM, Indiana U., 1975; MM, U. of Toledo, 1997.
Cook, R. Don (1991) BM, MM, Brigham Young U., 1980, 1982; DMA, U. of Kansas, 1987.
Hall, Rosalind (2000) BM, Royal Academy of Music, London, England, 1977; MM, Brigham Young U., 1992.
Hansen, Eric (2001) BM, MM, Peabody Conservatory, Johns Hopkins U.
Harker, Brian C. (1997) BA, MA, Brigham Young U., 1990, 1994; MPhil, PhD, Columbia U., 1995, 1997.
Howard, Luke (2002) BMusEd, U. of Sydney, Australia, 1991; MA, Brigham Young U., 1994; PhD, U. of Michigan, 1997.
Jaccard, Jerry (1993) BME, U. of Arizona, 1965; MME, Holy Names Coll., 1976; EdD, U. of Massachusetts, 1995.
Jessop, Scott Gordon (1980) BS, MS, Utah State U., 1961, 1964; EdS, U. of Utah, 1973; PhD, Brigham Young U., 1980.
Kenney, Susan Hobson (1977) BS, U. of Utah, 1966; MA, Brigham Young U., 1978.
Lindeman, Stephan D. (1996) BM, Indiana U., 1977; MA, Queens Coll., City U. of New York, 1984; PhD, Rutgers U., 1995.
Lockwood, Gayle (1999) BM, Brigham Young U., 1968; MM, U. of Utah, 1971.
Peterson, Donald L. (1986) BM, MA, Brigham Young U., 1976, 1983; DMA, Arizona State U., 1986.

Assistant Professors

Bevan, Julie (2000) BM, Brigham Young U., 1973; MM, U. of Southern California, 1975.
Bigelow, Anny Claudine (1999) BM, MM, Brigham Young U., 1991, 1994; DMA, U. of Maryland, 2001.
Call, R. Steven (1991) BM, MM, Utah State U., 1971, 1975; PhD, U. of Utah, 2000.
Christensen, Ruth (2000) BM, Brigham Young U., 1991; MM, Arizona State U., 1993; DMA, U. of Michigan, 1999.
Clayton, April (2000) BM, MM, U. of Cincinnati College–Conservatory of Music, 1995, 1996; DMA, The Juilliard School, 2001.
Hinckley, Jaren (2001) BM, U. of Utah, 1993; MM, Indiana U., 1995; DM, Florida State U., 2001.
Holden, Scott (2002) BM, U. of Michigan, 1992; MM, The Juilliard School, 1995; DMA, Manhattan School of Music, 2002.
Kimball, Wilford W. (2004) BM, Brigham Young U., 1994; MM, Duquesne U., 1997; DMA, Arizona State U., 2001.
Ricks, Steven Leon (2002) BM, Brigham Young U., 1993; MM, U. of Illinois, 1995; PhD, U. of Utah, 2001.
Smith, Christian B. (1997) BM, MM, Brigham Young U., 1991, 1993; DMA, U. of Michigan, 2006.

Emeriti

Arbizo, Ray L. (1970) BA, MA, Arizona State U., 1952, 1955.
Bachelder, Daniel F. (1975) BM, U. of Montana, 1961; MM, U. of Idaho, 1965; PhD, Brigham Young U., 1976.
Belnap, Parley L. (1965) BA, MA, Brigham Young U., 1950, 1956; DMA, U. of Colorado, 1975.
Curtis, Brandt B. (1955) BA, Brigham Young U., 1953; MM, DMA, Indiana U., Bloomington, 1955, 1978.
Dalton, David (1963) BM, MM, U. of Rochester, 1959, 1961; DM, Indiana U., Bloomington, 1970.
Downs, Robert H. (1966) BM, MM, U. of Missouri, Kansas City, 1957, 1957.
Gibbons, Rendol L. (1964) BA, MA, Arizona State Coll., 1947, 1954; PhD, U. of Colorado, 1969.
Goodman, A. Harold (1960) BA, U. of Arizona, 1947; MM, EdD, U. of Southern California, 1951, 1960.
Harris, H. Jarolde (1970) BM, Bethany Coll., 1950; MM, Northwestern U., 1954.
Hatton, Gaylen A. (1979) BA, MA, Brigham Young U., 1951, 1954; PhD, U. of Utah, 1964.
Mason, James A. (1957) BA, MA, Brigham Young U., 1955, 1957; EdD, Arizona State U., 1970.
Nibley, Reid N. (1969) BFA, MA, U. of Utah, 1950, 1953; DMA, U. of Michigan, 1964.
Pollei, Paul C. (1963) BM, U. of Utah, 1961; MM, U. of Rochester, 1962; PhD, Florida State U., 1975.
Ripplinger, Donald H. (1975) BA, Brigham Young U., 1954; MS, PhD, U. of Utah, 1965, 1968.
Robison, Clayne W. (1973) BA, Brigham Young U., 1962; JD, Harvard U., 1965; BA, Brigham Young U., 1970; MM, DMA, U. of Washington, 1971, 1973.
Smith, Robert Baily (1967) BA, MA, Brigham Young U., 1957, 1967.
Stuart-Bachelder, Lila R. (1986) BM, U. of Utah, 1964; MM, DMA, Indiana U., 1968, 1993.

Stubbs, Darrel W. (1962) BM, U. of Rochester, 1949; MM, Indiana U., Bloomington, 1952; DMA, U. of Southern California, 1966.
Terry, Elvis B. (1957).

Native American Studies

See History.

Navajo

See Center for Language Studies.

Neuroscience Center

Neuroscience Center Office
1055 SWKT, (801) 422-1218

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

College of Biology and Agriculture Academic Advisement Office
380 WIDB, (801) 422-3042

The neuroscience undergraduate program is an interdisciplinary program that allows students to seek advisement at the College of Biology and Agriculture Academic Advisement Office or the College of Family, Home, and Social Sciences Advisement Center.

Admission to Degree Program

The degree program in the Neuroscience Center carries special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Neuroscience is the field of study covering the development and function of the central nervous system and its connection to influencing/regulating behavior. The study of neuroscience examines topics such as neuroanatomy, neuropsychopharmacology, neurophysiology, molecular neurobiology, and neuroendocrinology. The interdisciplinary nature of neuroscience requires the tools provided by experience and training in calculus, general biology, genetics, physiology, molecular biology, chemistry (general, organic, and biochemistry), physics, psychology (hormones and behavior, memory, cognition, sensation, and perception), and research design and analysis.

The objectives for students pursuing a major in neuroscience are to (1) establish and promote an interdisciplinary education in neuroscience, (2) produce scientifically literate individuals having the ability to design, conduct, and analyze research activities, and (3) have students think critically in an integrative fashion based upon research-rich and inquiry-based academic curricula.

Career Opportunities

Neuroscience prepares students to pursue advanced degrees in graduate school or to enter into the pharmaceutical and biotechnology workforce. Neuroscience is an excellent preprofessional field of study for those interested in health professions, law, or business.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Neuroscience

Students should see their college advisement center for help or information concerning the undergraduate programs.

BS Neuroscience (66–68 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Family, Home, and Social Sciences College Advisement Center for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following prerequisite courses:
   Biol 120.
   Chem 105.
2. Students must have a minimum grade of C+ for each of the above courses before being accepted to the major. Grades will be accepted from transfer students for chemistry and introductory biology. Information regarding the average grades earned in prerequisite courses by students accepted into the major can be obtained from the College of Family, Home, and Social Sciences Advisement Center.
3. Complete the following:
   Biol 240, 340, 360.
   Neuro 205, 360, 460, 480, 481.
   PDBio 362.
4. Complete the following:
   Chem 106, 107, 351, 352, 481.
5. Complete one of the following options:
   Either Phscs 105, 106, 107, 108
   Or Phscs 121, 123, 220.
6. Complete the following:
   Engl 316.
7. Complete one course from the following:
   Math 119.
   Stat 221.
8. Complete at least 10 hours from three different departments from the following electives:
   Biol 220.
   Chem 482.
   InBio 370.
   Neuro 449R**.
   PDBio 363, 561, 565**, 568**.
   Psych 370***, 375, 382, 584**.

   Either Math 119
   Or Stat 221.

Note: Students should carefully consult with the Neuroscience Center and faculty regarding which electives they should take to best support their postgraduate plans.

**These courses require the instructor's signature before enrolling.

***This course is strongly recommended.

Recommended Courses

In addition to the above courses, students may find the following courses helpful (see Preprofessional Advisement Center, 3326 WSC):

Chem 353.
PDBio 220.
StDev 139, 227, 229, 239, 329, 339, 399R.

*Hours include courses that may fulfill university core requirements.

Neuroscience (Neuro)

Undergraduate Courses

205. Neurobiology. (3:3:0) F, W Prerequisite: neuroscience majors or pre-neuroscience majors.
The nervous system; cellular communication, neural basis of behavior, and hormonal influences.

360. Neuroanatomy. (2:2:0) F, W, Sp Prerequisite: Neuro 205.
Functional anatomy of the human brain and spinal cord, including surface and cross-sectional gross anatomy, microscopic anatomy, and sensory, motor, and integrative systems' circuitry.

449R. Undergraduate Research Experience. (1–3:0:0 ea.) F, W, Sp, Su
Undergraduate research experience in neuroscience.

460. Behavioral Neuroscience. (3:3:0) F, W Prerequisite: Neuro 205; neuroscience major status.
Critical examination of anatomical, physiological, and chemical bases of behavioral expression.

480. Advanced Neuroscience. (3:3:0) F, W Prerequisite: Neuro 205, Biol 360; neuroscience major status.
Principles of neural science. Structure-function relationships and integration of the nervous system.

481. Neuroscience Laboratory. (1:0:3) F, W Prerequisite: Neuro 480 or concurrent enrollment; neuroscience majors only.
Exposure to classical/modern experiments in neuroscience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Neuroscience Faculty

Professors

Bigler, Erin D. (1990) BS, PhD, Brigham Young U., 1971, 1974.
Bloch, George J. (1989) BS, Brandeis U., 1962; MA, Claremont Graduate School, 1965; PhD, Stanford U., 1968.
Busath, David D. (1995) BA, MD, U. of Utah, 1974, 1978.
Higley, James Dee (2006) BA, Brigham Young U., 1980; MS, PhD, U. of Wisconsin, Madison, 1983, 1985.
Lephart, Edwin D. (1994) BS, MS, Brigham Young U., 1979, 1982; PhD, U. of Texas Southwestern Medical Center, Dallas, 1989.
McPherson, David (1991) BS, Brigham Young U., 1967; MA, George Washington U., 1969; PhD, U. of Washington, 1972.
Porter, James P. (1998) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of California, San Francisco, 1982.
Woodbury, Dixon J. (2001) BS, U. of Utah, 1980; PhD, U. of California, Irvine, 1986.

Associate Professors

Hedges, Dawson W. (2000) BS, Weber State Coll., 1984; MD, U. of Utah, 1988.
Hopkins, Ramona O. (1999) BS, Westminster Coll., 1998; MS, PhD, U. of Utah, 1992, 1996.
Judd, Allan M. (1991) BS, MS, Brigham Young U., 1973, 1978; PhD, West Virginia U., 1982.
Steffensen, Scott C. (2000) BS, PhD, U. of Utah, 1980, 1986.

Assistant Professors

Allen, Mark (2006) BS, MA, U. of Utah, 1993, 1999; MA, PhD, Johns Hopkins U., 1999, 2000.
Brown, Michael D. (2003) BS, Brigham Young U., 1993; MS, PhD, Colorado State U., 1998, 1999.
Flom, Ross A. (2001) BS, U. of Minnesota, 1992; MEd, Idaho State U., 1993; PhD, U. of Minnesota, 1999.
Stark, Michael R. (2001) BS, Brigham Young U., 1992; MS, Idaho State U., 1994; PhD, U. of California, Irvine, 1998.
Sudweeks, Sterling N. (2001) BS, Brigham Young U., 1992; PhD, U. of Utah, 1997.

Emeriti

Fleming, Donovan E. (1971) BS, MS, Brigham Young U., 1956, 1957; PhD, Washington State U., 1962.

Niuean

See Center for Language Studies.

Norse

See Center for Language Studies.

Norwegian

See Department of Humanities, Classics, and Comparative Literature.

Nursing

Mary Williams, Interim Dean
500A SWKT, (801) 422-5626

Catherine Coverston, Associate Dean
500D SWKT, (801) 422-5613

College of Nursing Advisement Center
551 SWKT, (801) 422-4173

Admission to Degree Program

The degree programs in the College of Nursing carry special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Brigham Young University's baccalaureate nursing program prepares general clinicians with the knowledge, skills, leadership abilities, and values commensurate with professional nursing practice. Nursing education builds on the sciences, humanities, and religious studies to develop the strong theoretical and practical base necessary to understand and meet the needs of people in various health care settings.

Learning comes alive as students move from the classroom through the clinical simulation laboratory to actual patient care. Students assess, diagnose, and treat actual and potential human responses in an effort to promote, restore, or maintain health. Baccalaureate graduates develop their ability to be sensitive to the welfare of others, communicate effectively, evaluate research findings, think critically, solve problems, and utilize appropriate technology as they provide quality nursing care to people of all ages and from diverse backgrounds.

Career Opportunities

Career positions are available in various health care settings.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Nursing

Students should see the college advisement center for help or information concerning the undergraduate program.

Graduate Programs and Degrees

MS Nursing

For more information see the BYU 2007–2008 Graduate Catalog.

Undergraduate Admittance Requirements

The following criteria have been established for acceptance and progression in the baccalaureate program.

1. Be fully matriculated at BYU.
2. Acceptance into the nursing major is competitive and restricted to a limited number of openings each year. Not all students who meet the minimum requirements are guaranteed acceptance into the program.

   Applicants are evaluated on a variety of criteria using a point system. Admission criteria has included academic

progression; written communication skills; community, school, and church service; recommendations from employers and/or educators; and the professional judgment of the admissions committee. In the last three years, the average GPA of students accepted into the program has been from 3.76 to 3.87, with a range of 3.387 to 4.0.

3. Complete the following before beginning nursing courses:
   Chem 152 and 281; or Chem 285.
   MFHD 210 or Psych 220.
   Nurs 180.
   PDBio 305.
   And an additional 16–20 hours from the university core.

   Note: Students may apply to the baccalaureate program during the semester they are completing prerequisite courses.
4. Students with English as a second language: Take the English Proficiency Examination plus all ESL service courses as recommended by the examination outcome. Successfully complete Nurs 102. The college requires a TOEFL score of at least 580 (paper based) or 237 (computer based) or 92 (IBT).
5. Maintain a C grade or above in all nursing courses, including prerequisite and supporting courses. A grade of C– does not allow advancement to the next course in the sequence.

Note: Notify the college advisement center before dropping or interrupting course work.

Note: Transfer credit older than seven years will not apply to the major without prior approval of the associate dean of undergraduate affairs.

Note: Students may repeat prerequisite courses only one time. More than one repeat may adversely affect admission.

Applicants who meet the above criteria are eligible to be considered for acceptance. Students who have been admitted to BYU must apply for the nursing program through the college advisement center (551 SWKT). Students are accepted fall and winter semesters. Application deadlines and requirements are available online at http://nursing.byu.edu/academics/undergrad/advisement.asp. Nursing applicants are required to have a current CPR certification (see advisement center for CPR requirements) and a current first aid certification when applying. Once accepted, students are required to have a physical examination, pass background checks, and submit immunization records to the Nursing Advisement Center. Students are responsible for the cost of these required elements.

Computers are used in all health care facilities; and students are expected to be computer literate when accepted into the College of Nursing.

General Information

The college nursing program is accredited by the Commission on Collegiate Nursing Education.

Clinical Assignments and Transportation.

Educational experiences are located in Utah, Salt Lake, and Davis counties. Didactic courses are taught in Provo. Clinical experiences are in agencies throughout the Wasatch Front. Visits to agencies and client homes are also required. To achieve the best possible clinical education, students will need to travel throughout their course work. Access to a car is highly recommended. Students are responsible for their own transportation. Transcultural rural and international clinical experiences are also available.

BS Nursing (94 hours*)

This is a limited-enrollment program requiring college admissions approval. Please see the college advisement center office for information regarding requirements for admission to this major.

Major Requirements

1. A C grade or above must be maintained in all required courses.
2. Complete the following prerequisite courses:
   Chem 285.
   Nurs 180
   PDBio 305.

   Note: Chem 101 or an acceptable score on the Chemistry Placement Exam is prerequisite to Chem 285 if the student has completed no previous chemistry course work.
3. Complete one course from the following prerequisite courses:
   MFHD 210.
   Psych 220.
4. Be admitted to the program.
5. Complete the following supporting courses:
   MMBio 221, 222.
   NDFS 100.
   PDBio 220, 365.
   Psych 342.
   Stat 221.

   Note: Math 110 (or equivalent) may need to be taken prior to Stat 221.
6. Complete one course from the following:
   Anthr 101.
   Soc 112, 323.
7. Complete the following:
   Nurs 294, 295, 296, 297, 300, 320, 330, 339, 340, 360, 400, 460, 470, 480, 489, 490.

*Hours include courses that may fulfill university core requirements.

Nursing (Nurs)

Undergraduate Courses

102. Nursing and Medical Terminology. (2:2:0) Independent Study only.
Nursing and medical terminology for prenursing and beginning nursing students or those interested in health occupations.

180. Preview of Nursing. (1:2:0) On blk.
Development of nursing as a profession; issues and trends evident throughout nursing history and their impact on nursing today.

288. Family Health Management. (2:2:0) Prerequisite: non–nursing major status.
Promotion and maintenance of health over the life span, emphasizing current issues affecting family health.

294. Health Assessment and Promotion. (3:2:2) F, W Prerequisite: nursing major status; concurrent enrollment in NDFS 100, MMBio 221, 222, PDBio 220.
Acquiring and applying health assessment knowledge and skills. Health promotion, health maintenance, and therapeutic communication.

295. Fundamental Nursing Concepts and Care. (2:1.5:1) F, W Prerequisite: Nurs 294, Stat 221; concurrent enrollment in Nurs 296, 297, 320.
Acquiring and applying basic nursing skills and concepts; utilizing the nursing process: assessment, diagnosis, planning, implementation, and evaluation. Skills lab included.

296. Introduction to Community Health Nursing. (1:2:0) F, W Prerequisite: Nurs 294, Stat 221; concurrent enrollment in Nurs 295, 297, 320.
Basic community health nursing concepts, emphasizing health of groups.

297. Nursing Care of the Older Adult. (3.5:2:4.5) F, W Prerequisite: Nurs 294, Stat 221; concurrent enrollment in Nurs 295, 296, 320.

Applying assessment, communication, critical thinking, and technical skills to optimize the functional status of older adults through health promotion, risk reduction, and disease prevention strategies.

300. Pharmacology in Nursing. (3:3:0) F, W Prerequisite: Stat 221, Nurs 295, 296, 297, 320; concurrent enrollment in PDBio 365, Nurs 330.

Common categories of drugs: their action, use, and desired and undesired effects; implications for nursing care.

320. Scholarly Inquiry in Nursing. (3:3:0) F, W Prerequisite: Nurs 294; Stat 221 or concurrent enrollment; concurrent enrollment in Nurs 295, 296, and 297.

Acquiring knowledge of the research process, identifying clinical problems, evaluating and using evidence, and engaging in advanced writing and oral communication in the discipline. Completion of both Nurs 320 and 339 fulfills GE Advanced Written and Oral Communication.

330. Nursing Care of Adults with Acute and Chronic Illnesses. (8:3:14) F, W Prerequisite: Stat 221, Nurs 295, 296, 297, 320; concurrent enrollment in PDBio 365, Nurs 300.

Care of acutely/chronically ill adults in inpatient settings; professional behavior; illness implications for patients/families; proficiency in technical skills.

339. Ethics in Nursing. (2:2:0) F, W Prerequisite: PDBio 365, Nurs 300, 330; concurrent enrollment in Nurs 340, 360.

Overview of ethical principles and theories, emphasizing role of ethics in nursing; instruction and practice in advanced oral and written communication skills for professional nursing practice. Completion of both Nurs 320 and Nurs 339 fulfills GE Advanced Written and Oral Communication.

340. Nursing Care of the Childbearing Family. (4:2:6) F, W Prerequisite: PDBio 365, Nurs 300, 330; concurrent enrollment in Nurs 339, 360.

Care of childbearing families from diverse backgrounds. Health promotion, assessment, and interventions related to complicated and uncomplicated pregnancy and birth.

360. Nursing Care of the Child-Rearing Family. (4:2:6) F, W Prerequisite: PDBio 365, Nurs 300, 330; concurrent enrollment in Nurs 339, 340.

Care of children, and their families, from diverse backgrounds. Health promotion, disease prevention, care of acute and chronic illness, and growth development.

390R. Independent Study in the Practice of Nursing. (1–9:Arr.:Arr. ea.) Prerequisite: instructor's consent.

399R. Academic Internship in Nursing Practice. (1–4:Arr.:Arr. ea.) Sp, Su Prerequisite: Nurs 297; departmental approval.

Work experience evaluated by supervisor and posted on student's transcript.

400. Global Health and Human Diversity. (4:1.5:7) Sp Prerequisite: Nurs 339, 340, 360.

Theory and practice of nursing in diverse populations within a global context. Clinical experiences for some sections include costs for travel, housing, meals, and incidental expenses.

450R. Special Topics in Clinical Nursing. (4:4:12 ea.) On blk. Prerequisite: Nurs 300, 318, 330.

Experience in clinical nursing specialties.

460. Psychiatric Nursing. (3.5:2:4.5) F, W Prerequisite: Nurs 339, 340, 360, Psych 342; concurrent enrollment in Nurs 470.

Nursing care for clients with complex psychiatric disorders.

470. Nursing Care of Adults in Crisis. (6.5:3:10.5) F, W Prerequisite: Nurs 339, 340, 360, Psych 342; concurrent enrollment in Nurs 460.

Nursing intervention for individuals and families in crisis.

480. Nursing Senior Seminar. (1:2:0) Prerequisite: Nurs 460, 470; concurrent enrollment in Nurs 490, or 489 and 490.

Characteristics of the nursing profession; professional behaviors and values. Review of nursing history.

489. Advanced Community Health Nursing. (3:2:3) Prerequisite: Nurs 400, 460, 470; concurrent enrollment in Nurs 480, 490.

Application of community health nursing concepts emphasizing the health of individuals, groups, and families.

490. Capstone. (7.5:4:16.5) F, W Prerequisite: Nurs 400, 460, 470; concurrent enrollment in Nurs 480, 489.

Clinical synthesis experience with focus on planning, delivering, and managing patient care in complex environments. Leadership components incorporated into clinical experiences and practices.

499R. Honors Thesis. (1–3:0:0 ea.)

Honors thesis preparation.

500-Level Graduate Courses (available to advanced undergraduates)

555. Pharmacology in Advanced Practice. (3:3:0)

Principles of pharmacology and drug therapy for advanced-practice nurses.

590R. Independent Study. (1–4:Arr.:Arr. ea.) Prerequisite: instructor's consent.

Individualized study.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Nursing Faculty

Professors

Callister, Lynn Clark (1988) BS, Brigham Young U., 1964; MN, Wichita State U., 1988; PhD, U. of Utah, 1993.

Mandleco, Barbara L. (1977) BSN, U. of Wisconsin, 1967; MN, U. of Florida, 1968; PhD, Brigham Young U., 1991.

Marshall, Elaine S. Sorensen (1987) BS, MS, PhD, U. of Utah, 1972, 1979, 1988.

Associate Professors

Beckstrand, Renea L. (1987) AS, Ricks Coll., 1979; AS, BS, MS, Brigham Young U., 1981, 1983, 1987; PhD, U. of Utah, 2001.

Coverston, Catherine R. (1989) AS, Brigham Young U., 1969; BS, U. of the State of New York, Albany, 1987; MS, Medical Coll. of Georgia, 1989; PhD, U. of Utah, 2001.

Memmott, Rae Jeanne (1992) BS, Brigham Young U., 1965; MS, U. of Colorado, 1967.

Rogers, Sandra (1980) BS, Brigham Young U., 1974; MS, U. of Arizona, 1980; DNSc, U. of California, San Francisco, 1989.

Rushton, Patricia (1995) BS, U. of Utah, 1971; MS, PhD, Brigham Young U., 1977, 1989.

Schwartz, Rosanne (1981) BS, MS, Brigham Young U., 1978, 1981; PhD, U. of Florida, 1991.

Williams, Mary (1978) BS, Brigham Young U., 1971; MS, U. of Utah, 1979; PhD, U. of Arizona, 1991.

Associate Teaching Professors

Abegglen, JoAnn (1985) BS, Brigham Young U., 1967; MS, U. of Utah, 1973; MS, Brigham Young U., 1988.

Anderson, Vickie Lane (1980) BS, MS, Brigham Young U., 1975, 1983.

Blad, Kent (1999) BS, U. of Utah, 1987; MS, Brigham Young U., 1999.

Ellinger, Patricia R. (1996) BS, Brigham Young U., 1970; MS, U. of Utah, 1991.

Mills, Debra Ann (1996) AS, Ricks Coll., 1974; BS, MS, Brigham Young U., 1982, 1989.

Stoneman, Eva (1997) BS, MS, Brigham Young U., 1959, 1997.

Assistant Professors

Berry, Judith (1997) BS, Brigham Young U., 1969; MS, Catholic U. of America, 1984.
Birkhead, Ana (2004) BS, MS, U. of Phoenix, 1997, 1999.
Dearing, Karen (2003) AD, Weber State Coll., 1975; BS, MS, PhD, U. of Utah, 1976, 1978, 2003.
Heise, Barbara (2005) AS, BS, Missouri Southern State Coll., 1983, 1986; MS, State U. of New York, 1989.
Lassetter, Jane (2002) AS, BS, MS, Brigham Young U., 1981, 1998, 2001.
Maughan, Erin (2004) BS, Brigham Young U., 1995; MS, PhD, U. of Utah, 2000, 2006.
Ravert, Patricia (1999) BS, MS, Brigham Young U., 1975, 1999.

Assistant Teaching Professors

Campbell, Lora Jean (1972) BS, Brigham Young U., 1969; MS, U. of Utah, 1972.
Christiaens, Glenda (2000) BS, MS, U. of Utah, 1994, 1999.
Cox, Amy (2001) BS, MS, Brigham Young U., 1997, 2000.
Heaston, Sondra (2005) AD, BS, Weber State U., 1987, 1989; MS, Brigham Young U., 2005.
Hubert, Peggy (2004) AD, BS, MS, Brigham Young U., 1983, 1999, 2001.
Palmer, Sheri (2001) BS, Brigham Young U., 1985; MS, Idaho State U., 1990.
Reed, Shelly (2005) BS, Brigham Young U., 1984; MSN, U. of Utah, 1992.
Ulberg, Ronald (2005) AD, Weber State U., 1989; BS, U. of Phoenix, 1992; MN, U. of Phoenix, 2000.

Instructors

Carlton, Troy (2000) AS, Weber State U., 1982; BS, U. of Utah, 1987; MS, Brigham Young U., 1996.
Freeborn, Donna (1999) AS, Brigham Young U., 1974; BS, Chapman U., 1983; MS, U. of California, Los Angeles, 1994.
Himes, Deborah (2005) BS, Brigham Young U., 1991; MS, U. of Utah, 1996.
Kohl, James (2005) BSN, U. of San Diego, 1989; MS, U. of Maryland, Baltimore, 1996.
Luthy, Karleen (2005) ADN, Utah Valley State Coll., 2000; BS, MS, Brigham Young U., 2003, 2005.

Emeriti

Alley, Laura Ellen (1972) BS, MS, U. of Utah, 1966, 1968.
Andersen, Rayola H. (1971) AD, BS, MS, U. of Utah, 1948, 1949, 1969; MN, Brigham Young U., 1979.
Bartholomew, Jewel A. (1970) BS, Brigham Young U., 1969, MS, U. of Utah, 1976.
Bearnson, Carolyn Sutherland (1997) BA, BS, Brigham Young U., 1969; MS, U. of Utah, 1996.
Bond, Elaine (1991) BS, MS, U. of Utah, 1989, 1990; DNSc, U. of San Diego, 1997.
Chaffin, Beverly H. (1976) BS, MS, U. of Utah, 1965, 1969.
Cope, Maxine J. (1970) BS, MS, EdD, U. of Utah, 1948, 1957, 1967.
Drake, Richard (1970) BS, Idaho State U., 1965; MS, Wayne State U., 1966; EdD, Brigham Young U., 1992.
Dyer, Elaine D. (1975) BS, St. Mary Coll., 1946; MS, PhD, U. of Utah, 1955, 1967.
Fosbinder, Donna (1991) BS, San Diego State U., 1983; MS, U. of San Diego, 1986; PhD, U. of San Diego, 1990.
Hammond, Kathleen B. (1964) BS, Brigham Young U., 1960; MS, U. of Utah, 1964.
Hammond, Marilyn (1985) BS, MS, U. of Utah, 1953, 1969.
Isaacs, Patricia C. (1977) BS, MS, U. of Utah, 1975, 1977; EdD, Brigham Young U., 1988.
Jensen, Marian (1970) BS, MS, U. of Utah, 1960, 1968; MS, EdD, Brigham Young U., 1979, 1992.
Jorgensen, Evelyn P. (1977) BS, MS, U. of Utah, 1947, 1975.
Leifson, June (1971) BS, Brigham Young U., 1957; MS, Wayne State U., 1964; PhD, Brigham Young U., 1979.
Mangum, Sandra (1983) BS, BA, Brigham Young U., 1958, 1959; MN, U. of Washington, 1962.
Murphy, Elaine (1967) BS, MS, U. of Utah, 1959, 1963.
Riddle, Lana (1971) BS, Brigham Young U., 1969; MS, U. of Utah, 1971; PhD, Texas Women's U., 1984.
Schmidt, Alice M. (1965) BS, U. of Iowa, 1947; MS, EdD, Brigham Young U., 1964, 1977.
Talmage, Carol (1985) BS, MS, Brigham Young U., 1950, 1984.
Tiedeman, Mary E. (1996) BS, Michigan State U., 1964; MN, U. of Florida, 1975; PhD, Wayne State U., 1988.
Wiker, Kathleen M. (1972) BS, MS, U. of Utah, 1965, 1969.
Wilson, Mary Louise (1979) BS, U. of Utah, 1953; MPH, U. of California, Berkeley, 1966; MS, U. of California, San Francisco, 1978.

Nutrition, Dietetics, and Food Science

Oscar A. Pike, Chair
S-221 ESC, (801) 422-3912

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

Some degree programs in the Department of Nutrition, Dietetics, and Food Science carry special enrollment limitations. Please see the department for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Dietetics
BS	Food Industry Management
BS	Food Science
BS	Nutritional Science
Minors	Food Science
	Nutrition

Students should see their college advisement center for help or information concerning the undergraduate programs.

Note: For the molecular biology program, see the Microbiology and Molecular Biology section of this catalog.

Graduate Programs and Degrees

MS	Food Science
MS	Nutritional Science

For more information see the BYU 2007–2008 Graduate Catalog.

BS Dietetics (80 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see below for information regarding requirements for admission to this major.

Following prerequisite courses, the Didactic Program in Dietetics (DPD) consists primarily of dietetics course work at the junior and senior level. The Brigham Young University Didactic Program in Dietetics is currently granted accreditation status by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-4876. Following graduation, students must gain acceptance into and complete a dietetic internship (DI) to qualify for the national examination required for Registered Dietitian (RD) status.

Program Acceptance Requirements

1. Students must apply by February 15 for admission into the professional sequence in the fall. Formal acceptance is required to continue with the professional sequence.
2. Enrollment is limited to 40 students.
3. Four of the following eight courses must be completed at the time of application: Acc 200, Chem 285, MMBio 221, NDFS 100, 200, 290; PDBio 220, 305.
4. Major GPA and performance in nutrition, dietetics, and food science courses will be considered. Successful applicants typically have a major GPA greater than 3.0 and nutrition, dietetics, and food science course grades greater than B–.
5. Applicants need at least 300 hours of dietetics-related work and/or volunteer experience.

Major Requirements

1. Complete the following courses (must be completed before professional sequence):
   NDFS 100, 200, 250, 251, 290.
2. Complete the following:
   Chem 101**, 285***.

   **Note: Or an equivalent general chemistry course from high school or junior college.

   ***Note: Chem 105, 106, 107, 351, 352, 481 sequence is recommended for students interested in medical or dental school or graduate programs in nutrition.
3. Complete one course from the following:
   Chem 103
   MMBio 222.
4. Complete the following:
   Acc 200.
   MMBio 221.
   PDBio 220, 305.
   Psych 111.
   Stat 221.
5. Complete the following professional sequence courses (after being admitted into the program):
   NDFS 300, 356, 374, 375, 400, 401, 405, 424, 435, 440, 445, 458, 466, 475, 490, 491.
   PDBio 365.

Recommended Courses

Bus M 300, 340.
Comms 352
I Sys 100, 101.
NDFS 310, 361, 380.

Recommended Minors

The following minors are very complementary to a dietetics major, but any area of interest could be considered:

Business
Communication
Gerontology (See School of Family Life).
International Development
Spanish

*Hours include courses that may fulfill university core requirements.

BS Food Industry Management (65 hours*)

The Discipline

There is an increasing demand for students graduating with a background in both food science and business. The multibillion dollar food industry continues to expand, both domestically and internationally, as a growing percentage of the population depends on food produced and preserved by that industry. Students wishing to focus on the industry's business aspects will find this emphasis to be excellent preparation for immediate employment as well as a stepping stone to a master of business administration (MBA) degree. With the addition of one course, students graduating with this degree can obtain a business minor in management. (Those wishing to pursue advanced degrees

other than the MBA degree or other professional programs should visit with an advisor before selecting this emphasis.)

Valuable experience is gained through numerous opportunities available in the program, including a required internship in the food industry. Students develop a network of professional contacts through participation in the Food Science Club, professional organizations, and national competitions. Scholarships are available from department, college, university, and professional organizations.

Career Opportunities

Graduates are prepared for employment in commercial and private food companies ranging from small entrepreneurial businesses to large corporations. Opportunities for business-oriented careers abound in such areas as food production management, food company management, food ingredient technical sales, and other management opportunities that require an understanding of technical and scientific issues.

Major Requirements

1. Consult with a faculty advisor prior to finalizing your curriculum plan.
2. Complete the following:
   NDFS 100, 191, 250, 251, 350, 355, 361, 362, 462.
3. Complete at least 1 hour of the following:
   NDFS 399R.
4. Complete the following:
   Acc 200.
   Bus M 300, 488, 489.
   Chem 105, 285.
   Econ 110, 210.
   MMBio 221, 222.
   Org B 320.
   Phscs 105.
   Stat 221.
5. Complete one course from the following:
   Bus M 371R, 380, 382.

Recommended Courses

Consult with a faculty advisor before selecting:
Engl 316 or M Com 320.
IAS 220.
Math 119.
Mfg 201, 202, 479.
NDFS 200, 450, 464, 465.
PAS 100.
Phscs 106.
TMA 150.

*Hours include courses that may fulfill university core requirements.

BS Food Science (68 hours*)

The Discipline

Food science is the multidisciplinary study of food and the application of knowledge thus gained to developing food products and processes, preserving and storing food, and assuring food safety and quality. Food science addresses the conversion of raw agricultural products into a nutritious, convenient, and economical food supply. Most of the food products available in grocery stores were developed and tested by food scientists. Approved by the Institute of Food Technologists, the principal professional organization of food scientists, the curriculum provides excellent preparation as a premedical, predental, or other preprofessional major. With the addition of one course, students graduating with this degree are able to obtain a minor in chemistry.

Valuable experience is gained through numerous opportunities available in the program, including faculty-mentored research, employment within the department, and paid food industry internships. Students also develop a network of professional contacts through participation in the Food Science Club, professional organizations, and national competitions. Scholarships are available from department, college, university, and professional organizations.

Career Opportunities

Exciting careers are found in such areas as developing new foods, ensuring food safety and quality, or researching ways to better preserve and store food. Salaries are highly competitive. Typically there are not enough graduates for the unique and challenging opportunities available in the worldwide, multibillion dollar food industry. The many facets of food science provide employment in large and small food companies, food ingredient companies, government agencies, and universities. Graduates are prepared for immediate employment, further study toward advanced degrees, or professional programs such as medicine, dentistry, pharmacy, law, and business.

Major Requirements

1. Consult with a faculty advisor prior to finalizing your curriculum plan.
2. Complete the following core requirements:
   NDFS 200, 250, 251, 350, 355, 361, 362, 450, 462, 464, 465.
3. Complete the following:
   Chem 105, 106, 107, 351, 352, 353, 481.
4. Complete one course from the following:
   Math 112, 113, 119.
5. Complete the following:
   MMBio 221, 222.
   Phscs 105, 106.
   Stat 221.
   TMA 150.
6. During the junior year or upon declaring food science as a major, students are strongly encouraged to select one of the following options to enhance career preparation:
   a. Choose a research topic and faculty mentor. Working in a research laboratory for 10–20 hours per week over the course of eight months, the student has daily contact with graduate students, technicians, and fellow undergraduate colleagues and frequent interactions with a faculty mentor. Student research often leads to participation in a publication and/or a presentation at a professional meeting. NDFS 494R credit is available.
   b. Produce a senior thesis in collaboration with a faculty mentor, derived primarily from library study that extensively explores the relevant questions. The thesis is written in the format of a scientific review paper. NDFS 494R credit is available.
   c. Work in an approved, faculty-supervised summer internship with a food company (generally the internship does not include study abroad.) NDFS 399R credit is available.

Recommended Courses

Consult with a faculty advisor before selecting:
Chem 223.
Econ 110.
Engl 316.
IAS 220.
Mfg 201, 202, 355.
NDFS 100, 191, 203.
PAS 100.
Phscs 107, 108.

*Hours include courses that may fulfill university core requirements.

BS Nutritional Science (61 hours*)

This degree provides excellent preparation for those individuals in preprofessional programs (e.g., premedicine, predentistry, prelaw) or for an advanced degree (MS, PhD) in nutrition or biological sciences.

Major Requirements

1. Complete the following core requirements:
   NDFS 100, 200, 305, 394, 435.
2. After consulting with a faculty advisor, complete 8 hours from the following:
   Biol 241, 340, 360.
   NDFS 201, 250, 251, 310, 380, 400, 424, 494R (2 hours).
3. Complete the following:
   Biol 120, 240.
   Chem 105, 106, 107, 351, 352, 353 (1 hour), 481.
   PDBio 305.
   Phscs 105, 106, 107, 108.
   Stat 221.

Recommended Courses

Biol 220.
Chem 223.
Hlth 375.
MMBio 221.

*Hours include courses that may fulfill university core requirements.

Minor Food Science (16 hours)

Many of these courses have prerequisites. Most students choosing this minor will have completed the prerequisites as part of their major. Other students will need to complete them.

Minor Requirements

1. Complete the following:
   NDFS 250, 251.
2. After consulting with a faculty advisor, complete 12 hours from the following:
   NDFS 350, 355, 361, 362, 450, 462, 464.

Minor Nutrition (16 hours)

Many of these courses have prerequisites. Most students choosing this minor will have completed the prerequisites as part of their major. Other students will need to complete them.

Minor Requirements

1. Complete the following:
   NDFS 100, 200.
2. After consulting with a faculty advisor, complete 10 hours from the following:
   NDFS 201, 305, 310, 380, 400, 424, 435.

Nutrition, Dietetics, and Food Science (NDFS)

Undergraduate Courses

100. Essentials of Human Nutrition. (3:3:0) F, W, Sp
Food-oriented study of nutrition facts and principles as a basis for dietary choices; consequences of choices; scientifically examining controversial topics.

191. Introduction to Food Science. (1:1:0) F, W
Guest lectures and exposure to vocations in food science.

200. Nutrient Metabolism. (3:3:0) F, Sp Prerequisite: NDFS 100 and organic chemistry, or concurrent enrollment.
Chemical structures of nutrients; their food sources, requirements, digestion, absorption, transport, metabolism, functions, storage, and excretion; metabolic consequences of nutrient deficiencies, interactions, imbalances, and toxicities.

201. Nutrition and Prevention of Chronic Disease. (2:2:0) W Prerequisite: NDFS 100.
Role of dietary choices in preventing or ameliorating chronic diseases. Examples of dietary interventions.

203. International Agriculture and Nutrition. (2:2:0) W
Causes of malnutrition and agricultural solutions.

250. Essentials of Food Science. (3:3:0) F, W, Sp Prerequisite: organic chemistry or concurrent enrollment; and concurrent enrollment in NDFS 251.
Overview of food science, including chemical, physical, and microbiological principles related to food processing, storage, and utilization. Current issues in food science.

251. Essentials of Food Science Laboratory. (1:0:3) F, W, Sp Prerequisite: concurrent enrollment in NDFS 250.
Laboratory experience in the chemistry of changes occurring during food processing, storage, and utilization.

290. Introduction to Dietetics. (1:1:0) F
The profession of dietetics; exposure to specialty areas through guest lectures.

292R. Fieldwork in Dietetics. (0.5–2:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Fieldwork for international students.

300. Clinical Nutrition 1. (4:4:0) F Prerequisite: NDFS 200; physiology, biochemistry; dietetics major status.
Nutritional assessment and medical nutrition therapy across disease states.

305. Nutritional Implications of Disease. (4:4:0) For nutritional science majors. W Prerequisite: NDFS 200; PDBio 305; Chem 285 or 481 or equivalent; or instructor's consent.
Nutritional assessment and medical nutrition therapy across disease states.

310. Sports Nutrition. (2:2:0) F, Sp Prerequisite: NDFS 100, PDBio 305.
Scientific basis for the role of nutrition in human performance. Critical evaluation of popular practices; making optimal food choices for physical activity.

330. Comparative Animal Nutrition. (3:3:0) W
Comparative digestion, absorption, and utilization of nutrients and nutritional applications of domestic, pet, and wildlife species.

350. Food Analysis. (4:3:3) W Prerequisite: Chem 351, 352, 353; NDFS 250, 251.
Principles, methods, and techniques of qualitative and quantitative physical, chemical, and biological analysis of food and food ingredients.

355. Food Process Engineering. (4:3:3) W Prerequisite: Phscs 105 and calculus.
Mass and energy balances, thermodynamics, fluid flow, heat and mass transfer; unit operations in food processing, including thermal processing, frying, irradiation, refrigeration, freezing, and dehydration.

356. Clinical Nutrition 2. (3:3:0) W Prerequisite: NDFS 300.
Medical nutrition therapy across disease states; continuation of NDFS 300.

361. Food Microbiology. (3:2:3) F Prerequisite: MMBio 221, 222; or equivalents.
Pathogenic and spoilage microorganisms in foods and their control. Beneficial microorganisms in food systems. Influence of the food system on growth and survival of microorganisms.

362. Food Commodity Processing. (3:2:3) F Prerequisite: Phscs 105, MMBio 221, 222, Chem 106, 107.
Characteristics of raw food material; principles of food preservation and food processing techniques; packaging materials and methods; sanitation and water and waste management.

374. Food Production Management. (2:2:0) F Prerequisite: NDFS 200, 250, 251.
Managing processes and techniques of quantity food production in commercial and institutional food systems.

375. Food Production Management Laboratory. (2:0:8) F, W Prerequisite: NDFS 374 or concurrent enrollment.

380. International Nutrition and Health. (3:3:0) W even yr. Prerequisite: NDFS 200 or instructor's consent.
Causes and consequences of nutrient deficiencies common in developing countries. Appropriate interventions to prevent or treat malnutrition.

390R. Special Topics in Food Science and Nutrition. (1–3:Arr.:0 ea.)
Topics vary.

394. Nutrition Research Fundamentals. (1:1:0) F Prerequisite: NDFS 200 or instructor's consent.
Design and protocols for and ethics of research with human subjects and animals. Scientific literature searches and presentations.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Off-campus work experience sponsored by industrial, government, or academic institutions.

400. Community Nutrition. (3:3:4) F Prerequisite: dietetics major or NDFS 200 or 201.
Public health nutrition applied to community programs.

401. Community Nutrition Fieldwork. (0.5:0:2) F Prerequisite: NDFS 300, concurrent enrollment in NDFS 400, and dietetic major status.
Experience in public health and community nutrition programs.

405. Nutrition Assessment Lab. (0.5:0:3) F on blk. Prerequisite: NDFS 300, 356.
Developing skill in anthropometric, biochemical, clinical, and dietary parameters of nutritional assessment.

424. Nutrition Through the Life Cycle. (2:2:0) W Prerequisite: NDFS 300 or 305 or instructor's consent.
Dietary recommendations for pregnancy and lactation; infant feeding; nutritional requirements, diet, and health concerns of preschoolers, school-age children, adolescents, and the elderly.

435. Nutritional Biochemistry. (4:4:0) F, W Prerequisite: NDFS 200; PDBio 305; biochemistry or equivalent.
Metabolic interrelationships among nutrients.

440. Teaching Methods in Dietetics. (3:3:0) F
Learning settings, learning theory; curriculum development and dissemination for dietetics majors.

445. Food Service Systems. (3:3:0) W Prerequisite: NDFS 374.
Input, transformation, and output in the food service system; emphasizes procurement, production, service, and sanitation.

450. Food Chemistry. (3:3:0) F Prerequisite: NDFS 250, 251.
Structure and properties of food components, including water, carbohydrates, protein, lipids, other nutrients, and food additives. Chemistry of changes occurring during processing, storage, and utilization.

458. Management in Dietetics. (3:3:0) F Prerequisite: NDFS 445.
Management cycle and theory applied to clinical and administrative dietetics.

462. Food Regulations and Quality Assurance. (2:2:0) F Prerequisite: Stat 221, NDFS 250, 251.
Federal and international food regulations and methods of assuring food quality.

464. Food Sensory Evaluation. (1:0:3) W Prerequisite: NDFS 200, 350, 355, 361, 362, 450, 462, or concurrent enrollment; concurrent enrollment in NDFS 465.
Analytical and affective methods of assessing sensory properties of food using statistical methods. Laboratory experience in sensory research and techniques. Integrative capstone course.

465. Food Product Development. (3:1:6) W Prerequisite: NDFS 200, 350, 355, 361, 362, 450, 462, or concurrent enrollment; concurrent enrollment in NDFS 464.
Integration and application of food science principles to develop new food products. Laboratory experience in food product design and development. Integrative capstone course.

466. Advanced Dietetics Practice. (3:3:0) W Prerequisite: NDFS 356, 445.
Skill development in specialized topics of medical nutrition therapy and administrative dietetics.

475. Research Methods in Dietetics. (2:2:0) W Prerequisite: concurrent enrollment in NDFS 466.
Research techniques in a variety of dietetics practice areas.

490. Professionalism Seminar. (2:2:0) W Prerequisite: senior status in dietetics program.
Issues in professional practice.

491. Internship Preparation. (1:1:0) F Prerequisite: senior status in dietetics program.
Selecting internship sites and preparing dietetic internship application packet.

492. Fieldwork in Nutrition, Dietetics, or Food Science. (1–8:0:24) Sp, Su Prerequisite: 12–15 credit hours in nutrition, dietetics, and food science; instructor's consent.

494R. Undergraduate Research in Nutrition, Dietetics, or Food Science. (1–3:0:9 ea.) F, W Prerequisite: instructor's and department chair's consent; 14 hours of nutrition, dietetics, and food science courses.
Mentored research experience or library thesis.

500-Level Graduate Course (available to advanced undergraduates)

520R. Supervised Practice Experience. (2–4:Arr.:Arr. ea.) F, W, Sp Prerequisite: acceptance into dietetic internship.
Supervised practice experience in clinical, management, and community dietetics settings.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Nutrition, Dietetics, and Food Science Faculty

Professors

Brown, Rodney J. (2005) BS, Brigham Young U., 1972; MS, Utah State U., 1977; PhD, North Carolina State U., 1978.

Christensen, Merrill J. (1982) BS, Brigham Young U., 1977; PhD, Massachusetts Inst. of Technology, 1982.

Johnston, N. Paul (1971) BA, Brigham Young U., 1966; MS, Oregon State U., 1967; MBA, U. of Utah, 1969; PhD, Oregon State U., 1971.

Ogden, Lynn V. (1984) BA, MS, Utah State U., 1966, 1967; PhD, U. of Minnesota, 1973.

Pike, Oscar A. (1986) BS, MS, Brigham Young U., 1980, 1982; PhD, Purdue U., 1986.

Rowe, Mark J. (1987) BS, PhD, Brigham Young U., 1968, 1972.

Associate Professors

Brown, Lora Beth (1983) BS, Iowa State U., 1965; MS, Cornell U., 1967; EdD, Brigham Young U., 1982.

Dunn, Michael L. (2003) BS, MS, Brigham Young U., 1987, 1989; PhD, Cornell U., 1996.

Franz, Kay B. (1968) BS, U. of California, Berkeley, 1958; MS, Brigham Young U., 1968; PhD, U. of California, Berkeley, 1978.
Nyland, Nora K. (1982) BS, MS, Brigham Young U., 1974, 1981; PhD, Kansas State U., 1989.

Associate Teaching Professors
Fullmer, Susan (1997) BA, MS, U. of Utah, 1986, 1989; PhD, Brigham Young U., 2004.
McGuire, Diana L. (1988) BS, MS, Brigham Young U., 1974, 1976.

Assistant Professors
Davidson, Robert T. (2003) BS, MS, Utah State U., 1992, 1994; PhD, U. of Wisconsin, Madison, 1998.
Steele, Frost M. (1996) BS, MS, Brigham Young U., 1985, 1987; PhD, Purdue U., 1990.

Part-Time Instructor
Duncan, Julie A. (1999) BS, Brigham Young U., 1993; MPH, U. of Utah, 1998.

Part-Time Associate Lecturer
Mitchell, Ana W. (1996) BS, MS, Brigham Young U., 1993, 1996.

Scientist
Hawkins, Ernest W. (1976) BS, MS, Brigham Young U., 1978, 1984; PhD, U. of Wyoming, 1988.

Adjunct Faculty
Austin, Bishop, Eliason, Heald, Heap, McClellan, Metos, Nielsen, Radford, Robson, Scott, Ware.

Emeriti
Bates, Winifred W. (1977) BS, Utah State U., 1944; MJ, U. of California, Berkeley, 1965.
Hill, John M. (1971) BA, PhD, Rice U., 1961, 1965.
Huber, Clayton S. (1976) BS, MS, Utah State U., 1962, 1963; PhD, Purdue U., 1968.
Johnson, John Hal (1969) BS, MS, Brigham Young U., 1955, 1957; PhD, Ohio State U., 1963.
Turner, Lavell G. W. (1963) BS, Brigham Young U., 1954; MS, U. of Wisconsin, Madison, 1959.

Philosophy

Daniel Graham, Chair
4086 JFSB, (801) 422-2721

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Philosophy are open enrollment.

The Discipline

From its first appearance in ancient Greece down to the present, philosophy has sought to understand the world and the place of human beings within it. As it frames ideas by means of which to clarify and explain experience, philosophy discloses its faith in the ultimate lucidity of things. Philosophy's respect for the authority of intelligence fosters a preference for persuasion that is fundamental to personal growth and democratic society.

Students who study philosophy will find that it not only provides insight into life's fundamental concerns, it also helps them develop their capacity for clear thinking and perceptive judgment. Such competence will serve them well as they pursue further education or begin their careers.

Career Opportunities

Philosophy offers excellent career preparation, but not in the way that, say, accounting does. The value of a major in philosophy resides in the intellectual development it promotes. It lays a foundation on which more specialized study may build. In various standardized tests, philosophy majors tend to do extremely well on the verbal aptitude and on the analytic thinking sections. So philosophy can prepare a student for any type of work that requires highly developed reading and writing skills. Students who elect to major in philosophy should look beyond their bachelor's degree right from the start. For example, philosophy is an excellent background for the study of law or medicine. Those who intend to enter graduate school will need to start early on the foreign-language requirement.

General Information

The Department of Philosophy strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Philosophy
Minors	Philosophy
	Logic

Students should see their college advisement center for help or information concerning the undergraduate programs.

BA Philosophy (42 hours*)

Major Requirements

1. Complete the following sources and methods courses:
   Phil 201, 202, 205, 300, 305.
2. Complete two of the following historical periods courses (should not be in the same period):
   Phil 320R, 330R, 340R, 350R.
3. Complete one of the following values and conduct courses:
   Phil 213, 214, 215, 218, 413, 414R, 416.
4. Complete two of the following knowledge and reality courses:
   Phil 405, 415, 420, 421, 422, 423.
5. Complete 12 additional hours (excluding 499R) (with no more than 3 hours of 449R). Students must have a total of 27 credit hours of upper-division course work (300-level or above) in the major.

*Hours include courses that may fulfill university core requirements.

Minor Philosophy (18 hours*)

Minor Requirements

1. Complete the following:
   Phil 201, 202, 205.
2. Complete three other philosophy courses.

*Hours include courses that may fulfill university core requirements.

Minor Logic (15 hours*)

Minor Requirements

1. Complete the following:
   Phil 205, 305, 405.
2. Complete two other approved courses.
3. No more than 9 hours may double-count for the philosophy major and the logic minor.

*Hours include courses that may fulfill university core requirements.

Philosophy (Phil)

Undergraduate Courses

110. Introduction to Philosophy. (3:3:0) Honors also.
Articulating, assessing, and defending fundamental positions on topics such as reason, knowledge, science, education, ethics, politics, and religion.

150. Reasoning and Writing. (3:3:0) F, W, Sp, Su Honors also.
Informal grammar, logic, and rhetoric as tools for reading and writing. Library research. Recommended for philosophy majors and minors. Fulfills GE First-Year Writing requirement. No course challenges accepted.

201. History of Philosophy 1. (3:3:0) Honors also.
Western civilization from Greek antiquity to Renaissance, primarily from perspective of philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. History of Philosophy 2. (3:3:0) Honors also. Prerequisite: Phil 201.
Western civilization from Renaissance to present, primarily from perspective of philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

205. Deductive Logic. (3:3:0) F, W, Sp, Su
History and use of syllogistic and propositional logic; evaluating arguments with Venn diagrams, truth tables, and Copi-style proofs and proof strategies.

210. Science and Civilization 1. (3:3:0) Honors also.
History of Civilization from Greek antiquity to scientific revolution; methods in early science and their philosophical significance; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

211. Science and Civilization 2. (3:3:0) Honors also. Prerequisite: Phil 210.
History of Civilization from scientific revolution to present; concepts and methods in modern science and their philosophical significance; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

213. Introduction to Ethics. (3:3:0)
Nature and justification of moral standards, beliefs, and decisions.

214. Introduction to the Philosophy of Art. (3:3:0)
The experience of beauty in nature, in literature, and in the arts.

215. Introduction to the Philosophy of Religion. (3:3:0)
Existence and nature of God, God's foreknowledge and man's free will, faith, immortality, and religious experience and language.

218. Science and Religion. (3:3:0) Prerequisite: one philosophy course.
Epistemological and metaphysical similarities and differences undergirding historical problems in science and religion. Nature and effects of past reconciliations; possibility and desirability of current reconciliations.

300. Philosophical Writing. (3:3:0) F, W Honors also. Prerequisite: Phil 150, 205; or equivalents.
Writing philosophical papers about philosophical texts or problems. Research methods in philosophy. Library research paper. Fulfills GE Advanced Written and Oral Communication requirement. No course challenges accepted.

305. Predicate Logic. (3:3:0) W, Su Prerequisite: Phil 205.
History and use of predicate logic; evaluating arguments with counterexamples and proofs; informal mathematical proofs. Fulfills GE Language/Mathematics requirement.

320R. Studies in Ancient Philosophy. (3:3:0 ea.) Prerequisite: Phil 201.
Selected figures or topics.

330R. Studies in Medieval Philosophy. (3:3:0 ea.) Prerequisite: Phil 201.
Selected figures or topics.

340R. Studies in Modern Philosophy. (3:3:0 ea.) Prerequisite: Phil 202.
Selected figures or topics.

350R. Studies in Contemporary Philosophy. (3:3:0 ea.) Prerequisite: one philosophy course.
Selected figures or topics.

405. Metalogic. (3:3:0) Alt. yr. Prerequisite: Phil 305.
Completeness and undecidability of predicate logic; incompleteness of arithmetic and set theory; treatment of related philosophical topics and of nonclassical topics as time permits.

413. Ethics. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or problems.

414R. Philosophy of Art. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or topics in aesthetics.

415. Philosophy of Religion. (3:3:0) Alt. yr. Prerequisite: one philosophy course.
Selected figures or problems.

416. Philosophy of Law. (3:3:0) Prerequisite: one philosophy course.
The relation between natural and enacted law; theories of punishment; utilitarian and nonutilitarian theories of law; liberty.

420. Philosophy of Language. (3:3:0) Prerequisite: one philosophy course.
Meaning and reference, synonymy, metaphor, exemplification, translation; linguistic, artistic, and perceptual symbol systems.

421. Metaphysics. (3:3:0) Prerequisite: one philosophy course.
Basic categories of being: appearance and reality, law, causality, space, time, eternity, deity.

422. Epistemology. (3:3:0) Prerequisite: one philosophy course.
Meaning, limits, and justification of knowledge.

423. (Phil 423–Phscs 314) History and Philosophy of Science. (3:3:0) Honors also. Prerequisite: Phy S 100 or instructor's consent.
Scientific explanation, concepts, and models. Philosophical assumptions and criteria for theory selection, as exemplified by historical development of basic ideas in science.

449R. Philosophical Lecture Series. (1:1:0 ea.) F, W
Lectures on philosophical topics by faculty and advanced students.

499R. Honors Thesis. (1–6:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Selected topic or figure in philosophy.

500-Level Graduate Course (available to advanced undergraduates)

501R. Graduate Seminar. (2–5:5:0 ea.) Prerequisite: instructor's consent.
Selected topic, figure, or movement in philosophy, as announced in current class schedule.

Philosophy Faculty

Professors
Carter, K. Codell (1973) BS, MA, U. of Utah, 1963, 1964; PhD, Cornell U., 1968.
Faulconer, James E. (1981) BA, Brigham Young U., 1972; MA, PhD, Pennsylvania State U., 1975, 1977.
Graham, Daniel W. (1986) AB, Davidson Coll., 1970; MA, Brigham Young U., 1975; PhD, U. of Texas, Austin, 1980.
Packard, Dennis Jay (1974) AA, Miracosta Coll., 1966; BA, PhD, Stanford U., 1968, 1974.
Paulsen, David L. (1973) BS, Brigham Young U., 1961; JD, U. of Chicago, 1964; PhD, U. of Michigan, 1975.
Rasmussen, Dennis F. (1970) BS, U. of Utah, 1966; MPhil, PhD, Yale U., 1968, 1970.
Warner, C. Terry (1967) BA, Brigham Young U., 1963; MA, PhD, Yale U., 1965, 1967.

Associate Professors
Anderson, Travis T. (1991) BFA, BA, Brigham Young U., 1985, 1985; MA, PhD, U. of Loyola, Chicago, 1989, 1991.
Grandy, David A. (1999) BS, Brigham Young U., 1973; MA, PhD, Indiana U., 1990, 1994.
Siebach, James L. (1994) BA, Brigham Young U., 1982; PhD, U. of Texas, 1994.
Wrathall, Mark A. (1996) BA, Brigham Young U., 1988; MA, Boston Coll., 1991; JD, Harvard U., 1991; PhD, U. of California, Berkeley, 1996.

Assistant Professors
Hedengren, Paul C. (1981) BA, MA, Brown U., 1971, 1973; PhD, U. of Toronto, Canada, 1983.
Jensen, David A. (2004) BA, Brigham Young U., 1996; MA, PhD, U. of California, Los Angeles, 1998, 2005.

Emeriti
Madsen, Truman G. (1957) BS, MS, U. of Utah, 1951, 1952; MA, PhD, Harvard U., 1957, 1960.
Nielsen, Fred Kent (1956) BA, MA, Harvard U., 1954, 1955.
Riddle, Chauncey C. (1952) BS, Brigham Young U., 1947; MA, PhD, Columbia U., 1951, 1958.
Yarn, David H. (1950) BA, Brigham Young U., 1946; MA, EdD, Columbia U., 1949, 1958.

Physical Education

See Exercise Sciences.

Physical Science

Scott Bergeson, Coordinator
N-267 ESC, (801) 422-6161

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

BS Teaching Physical Science (77.5–78.5 hours*, including licensure hours)

Major Requirements

1. Complete the following:
   Biol 100.
   Chem 105, 106, 107, 223, 351, 501.
   Geol 111, 112, 210.
   Phil 423.
   Phscs 105, 106, 107, 108, 127, 137.
2. Complete one course from the following:
   Geol 286, 351, 370, 480.
3. Declare major status by application available online at the Teacher Education Department Web site (http://education.byu.edu/ted/pdf/physicalscience.pdf) by January 15 for Fall semester and September 15 for Winter semester.
4. Students must maintain a GPA of 2.85. A grade lower than a C– will not be accepted in any of the professional education courses.
5. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R (4 hours), 350, 353, 377R, 378, 379.
      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Sc Ed 377R.
   b. Complete 12 hours from one of the following:
      Sc Ed 476R or 496R.

*Hours include courses that may fulfill university core requirements.

Physical Science (Phy S)

Undergraduate Courses

100. Physical Science. (3:3:0) F, W, Sp, Su Honors also (W only).
Conceptual lectures and demonstrations of the most significant and universal laws and models describing the physical world by faculty from the Physics and Astronomy, Chemistry and Biochemistry, and Geological Sciences departments. Satisfies GE Physical Science requirement.

110A. Physical Science A. (4:3:2) For majors in elementary, early childhood, or special education. F, W, Sp
Classical and modern physics and chemistry as they relate to current concepts of the physical world. Lab exercises illustrate many topics with concrete examples. With Phy S 110B satisfies GE Physical Science requirement.

110B. Physical Science B. (2:2:1) For majors in elementary, early childhood, or special education. F, W, Su
Concepts and methods used in geology to interpret rock record, protect and make use of earth materials, and better understand natural environment and how to live in it. Lab studies, field trips, home projects. With Phy S 110A satisfies GE Physical Science requirement.

111A. Physical Science A Laboratory. (1:0:2) F, W, Sp Prerequisite: Phy S 100; for majors in elementary, early childhood, or special education.
Laboratory exercises that illustrate physics and chemistry principles. To accompany or follow Phy S 100 lecture course. Not for students enrolled in Phy S 110A or 110B.

111B. Physical Science B Laboratory. (1:0:2) F, W, Su Prerequisite: Phy S 100; for majors in elementary, early childhood, or special education.
Laboratory exercises that illustrate geology principles. To accompany or follow Phy S 100 lecture course. Not for students enrolled in Phy S 110A or 110B.

Physics and Astronomy

Scott Sommerfeldt, Chair
N-281A ESC, (801) 422-2205

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Physics and Astronomy are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Over the centuries physicists and astronomers have studied the fundamental principles that govern the structure and dynamics of matter and energy in the physical world, from subatomic particles to the cosmos. Physicists also apply this understanding to the development of new technologies. For example, physicists invented the first lasers and semiconductor electronic devices.

Physics and astronomy students learn to approach complex problems in science and technology from a broad background in mechanics, electricity and magnetism, statistical and thermal physics, quantum mechanics, relativity, and optics. The tools they develop at BYU include problem solving by mathematical and computational modeling, as well as experimental discovery and analysis. All students gain professional experience in a research, capstone, or internship project, usually in close association with faculty. Together these experiences can provide excellent preparation for employment or for graduate studies in physics, other sciences, engineering, medicine, law, or business.

Most physicists and astronomers work in research and development in industrial, government, or university labs to solve new problems in technology and science. They also share the beauty discovered in our physical universe by teaching in high schools, colleges, and universities.

Career Opportunities

A degree in physics or physics–astronomy can provide:

1. Preparation for those who intend to enter industrial or governmental service as physicists or astronomers.
2. Education for those who intend to pursue graduate work in physics or astronomy.
3. Education in the subject matter of physics for prospective teachers of the physical sciences.
4. Undergraduate education for those who will pursue graduate work in the professions: business (e.g., an MBA), law, medicine, etc.
5. Fundamental background for other physical sciences and engineering, in preparation for graduate study in these fields.
6. Physics fundamentals required by the biological science, medical, dental, nursing, and related programs.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Applied Physics
	Emphases:
	Computer Science
	Selected Options
BS	Physics
BS	Physics-Astronomy
BS	Physics Teaching
Minors	Astronomy
	Physics
	Physics Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Physics
PhD	Physics
PhD	Physics and Astronomy

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   1 unit of physical science, either chemistry or physics.
   4 units of mathematics, consisting of algebra, geometry, trigonometry, and calculus. This should qualify students to begin college mathematics with Math 113, Calculus 2.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, high school preparation in this subject is of particular importance.
2. Students in physics should take mathematics beginning the first semester of the freshman year. Physics majors should ordinarily begin with Math 113. If preparation is inadequate, students might wish to enter the university during the spring or summer term and bring their mathematics preparation to the point where they can take Math 113 concurrently with Phscs 121 during the fall semester.
3. Students are strongly urged to learn to use a computer, including some knowledge of programming.

BS Applied Physics: Computer Science Emphasis

(62.5–65.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 140, 145, 191, 220, 222, 230, 240, 318, 321, 330, 430, 441, 581.

   Note: Phscs 191 should be taken the first semester.
3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete the following:
   C S 142, 235, 236, 240.
6. Complete one course from the following:
   C S 124, 224, 252, 324, 330.
   EC En 124, 224, 324, 450.
   Phscs 513R.

7. Complete one course from the following:
   Phscs 360, 427, 442, 451, 471, 517, 545, 561, 571, 585.
8. Complete a capstone project, including the following:
   a. Meet with department applied physics capstone project coordinator early in the junior year or before to obtain information about projects and procedures.
   b. Complete 2 hours of the following:
      Phscs 492R.

*Hours include courses that may fulfill university core requirements.

BS Applied Physics: Selected Options Emphasis

(57.5–61.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Consult with a faculty advisor as early as possible to choose electives.
3. Complete the following:
   Phscs 121, 123, 140, 145, 191, 220, 222, 230, 240, 245, 318, 321, 330, 430, 441.

   Note: Phscs 191 should be taken the first semester.
4. Complete one course from the following:
   EC En 466.
   Phscs 442, 471.
5. After gaining department chair's approval of courses selected to define an option, complete an additional 12 hours of electives (cannot include any courses already taken above). These 12 hours must consist of a coherent set of upper-division courses with an identified educational goal.
6. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
7. Complete one course from the following:
   Math 303, 334.
8. Complete a capstone project, including the following:
   a. Meet with department applied physics capstone project coordinator early in the junior year or before to obtain information about projects and procedures.
   b. Complete 2 hours of the following:
      Phscs 492R.

Sample Elective Courses

Acoustics: Phscs 561, 562 and choices from Ec En 380, 487, IT 346, Me En 363.

Biophysics: biology, biochemistry, PDBio 568.

Electrical Engineering (graduate school preparation): EC En 320, 324, 380 and 400-level courses.

Materials Science (graduate school preparation): Phscs 451, 452, 581, Chem 105, 106 or Chem 111, 112.

Microelectronics/Semiconductor Devices: Chem 105, Ch En 381, Phscs 281 or 581, EC En 450 or Phscs 587, Stat 332.

Nuclear Physics (power generation for industry or navy): Phscs 360, 451, 452, Me En 422.

Optical Communication Engineering: Phscs 471, 571, EC En 380, 466, 555, 562.

Optical/Laser Engineering: Phscs 442, 471, and/or 571, EC En 466, 555, and/or 562.

Premedicine, Prelaw (including patent law), Prebusiness: Courses in specialty.

*Hours include courses that may fulfill university core requirements.

BS Physics (58.5–61.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 140, 145, 191, 220, 222, 230, 240, 245, 318, 321, 330, 360, 430, 441, 442, 451, 452, 471.

   Note: Phscs 191 should be taken the first semester.
3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete a senior thesis, including the following:
   a. Meet with department undergraduate research coordinator early in the junior year or before to obtain information about research projects and senior thesis procedures.
   b. Complete 2 hours of the following:
      Phscs 498R.

Recommended Course

Chem 105.

*Hours include courses that may fulfill university core requirements.

BS Physics-Astronomy (61.5–64.5 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
   Phscs 121, 123, 140, 145, 191, 220, 222, 227, 228, 230, 240, 318, 321, 329, 330, 360, 427, 428, 451, 471.

   Note: Phscs 191 should be taken the first semester.
3. Complete one of the following options:
   Either Math 113, 302
   Or Math 113, 214, 343.
4. Complete one course from the following:
   Math 303, 334.
5. Complete a senior thesis, including the following:
   a. Meet with department undergraduate research coordinator early in the junior year or before to obtain information about research projects and senior thesis procedures.
   b. Complete 2 hours of the following:
      Phscs 498R.

Recommended Course

Chem 105.

*Hours include courses that may fulfill university core requirements.

BS Physics Teaching (74.5–75.5 hours*, including licensure hours)

Major Requirements

1. No D credit is allowed in major courses.
2. Contact the Education Advisement and Certification Office for entrance requirements into the licensure program.
3. A teaching minor is not required for licensure. However, it is strongly recommended.

4. Complete the following:
   Phscs 121, 123, 127, 140, 145, 191, 220, 222, 240.

   Note: Phscs 191 should be taken the first semester.

5. Complete one course from the following:
   Phil 423.
   Phscs 314.

6. Complete the following:
   Math 112, 113, 302.

7. Complete one course from the following:
   Math 303, 334.

8. Complete an additional 9 hours from the following or any 300-, 400-, or 500-level physics course not already taken. At least 6 hours must be upper-division physics courses (Phscs 321 and 471 are highly recommended):
   Phscs 137, 167, 281.

9. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R, 350, 353, 377R, 378, 379.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in ScEd 377R.

   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

Minor Astronomy (23 hours*)

Minor Requirements

Complete the following:
Math 112, 113.
Phscs 121, 127, 227, 228, 329.

*Hours include courses that may fulfill university core requirements.

Minor Physics (24 hours*)

Minor Requirements

Complete the following:
Math 112, 113.
Phscs 121, 123, 140, 145, 220, 222, 240.

*Hours include courses that may fulfill university core requirements.

Minor Physics Teaching (26 hours*)

Minor Requirements

Complete the following:
Math 112, 113.
Phscs 121, 123, 145, 220, 222, 240, 314.

*Hours include courses that may fulfill university core requirements.

Physics and Astronomy (Phscs)

Undergraduate Courses

101. Fundamentals of Physics. (3:3:0) F
Principles of classical and modern physics as they relate to current concepts of our physical environment.

105. Introductory Applied Physics. (3:3:0) F, W, Sp Prerequisite: high school algebra and trigonometry. Recommended: concurrent enrollment in Phscs 107.
Applied physics course not requiring calculus. Topics include mechanics, heat, wave motion, sound.

106. Introductory Applied Physics. (3:3:0) F, W, Su Prerequisite: Phscs 105 or equivalent. Recommended: concurrent enrollment in Phscs 108.
Continuation of Phscs 105. Topics include electricity and magnetism, atomic and nuclear physics, and optics.

107. Introductory Applied Physics Laboratory. (1:0:3) F, W, Sp Prerequisite: Phscs 105 or concurrent enrollment.

108. Introductory Applied Physics Laboratory. (1:0:3) F, W, Su Prerequisite: Phscs 106 or concurrent enrollment.

121. Principles of Physics 1. (3:3:1) F, W, Sp, Su Prerequisite: calculus or concurrent enrollment.
Newtonian mechanics. Weekly lab.

123. Principles of Physics 2. (3:3:1) F, W, Sp Prerequisite: Phscs 121.
Waves, thermal physics, optics, special relativity, and introduction to modern physics. Weekly lab.

127. Descriptive Astronomy. (3:3:0.5) F, W, Sp, Su Honors also.
Nonmathematical presentation of knowledge of the content and history of the cosmos, frequently using observatory and planetarium.

137. Introduction to the Atmosphere and Weather. (3:3:0) F, W Prerequisite: Phy S 100 or equivalent.
Nonmathematical introduction to characteristics of the atmosphere, emphasizing structure and dynamic behavior, including the environmental impact of man.

140. Electronics Lab. (1:1:2) F, Sp
Introduction to analog and digital circuits.

145. Experimental Methods in Physics. (1:0:3) W, Su Prerequisite: Phscs 121, 140.
Introduction to physical measurement and analysis, optics, sensors, actuators, and computer-based data acquisition.

167. Descriptive Acoustics of Music and Speech. (3:3:0) F, W, Sp Prerequisite: Phy S 100 or equivalent.
Introductory acoustics course, emphasizing physical principles underlying production and perception of music and speech.

191. Introduction to Physics Careers and Research. (0.5:1:0) F
Survey of BYU undergraduate physics and astronomy programs, careers in physics and astronomy, and current physics and astronomy research. Take first semester after registered as physics major.

198. Physics and Mathematics Review. (1:2:0) F 1st blk. Prerequisite: Phscs 121; Math 113 or concurrent enrollment.
Review of mathematics and introductory physics for returning missionaries and others returning after a significant break.

220. Principles of Physics 3. (3:3:1) F, W, Sp Prerequisite: Phscs 121 or equivalent; Math 113 or equivalent.
Electricity and magnetism. Weekly lab.

222. Modern Physics. (3:3:0) F, W, Su Prerequisite: Phscs 121, 123, 220.
Quantum physics, atoms, molecules, condensed matter, nuclei, elementary particles, and selected topics in contemporary physics.

227. Solar System Astronomy. (3:3:0) F Prerequisite: Phscs 121, 123; Math 113 or concurrent enrollment.
Physics of light and matter, Newton's laws, solar-system dynamics, and planetary surfaces and atmospheres.

228. Stellar and Extragalactic Astronomy. (3:3:0) W Prerequisite: Math 113, Phscs 227.
Stellar atmospheres, stellar interiors, stellar evolution, interstellar matter, galactic structure, external galaxies, and cosmology.

230. Computational Physics Lab 1. (1:0:3) F, W Prerequisite: Phscs 220 or concurrent enrollment.
Numerical and symbolic differentiation, integration, and differential equations, using Maple. Applications in mechanics, optics, and special relativity.

240. Design, Fabrication, and Use of Scientific Apparatus. (2:0:6) F, Sp Prerequisite: Phscs 123, 145.
Machining, computer interfacing, controls, and vacuum systems.

245. Experiments in Contemporary Physics. (2:0:6) W, Su Prerequisite: Phscs 220, 240.
In-depth, multi-period experiments in contemporary physics, using advanced instrumentation.

281. Principles of Solid State Physics. (3:3:1) For students in science, computer science, technology, and engineering. F Prerequisite: Phscs 121, 220.
Introduction to physics of solids, including laboratory experience.

297R. Introduction to Research. (1–3:0:Arr. ea.) F, W, Sp, Su
Faculty-supervised research experience.

313R. Special Topics in Physics. (1–3:Arr.:0 ea.) On dem.
Special topics in physics for undergraduate physics majors.

314. (Phscs–Phil 423) History and Philosophy of Science. (3:3:0) F Prerequisite: Phy S 100 or instructor's consent.
Scientific explanation, concepts, and models. Philosophical assumptions and criteria for theory selection, as exemplified by historical development of basic ideas in science.

318. Introduction to Classical Field Theory. (3:3:0) F, W, Sp Prerequisite: Phscs 230; Math 303 or 334.
Classical equations of physical fields; algebra of complex variables; applying Fourier analysis, Fourier transforms, and orthogonal functions.

321. Mechanics. (3:3:0) F, Sp Prerequisite: Phscs 121, 230; Math 303 or 334 or concurrent enrollment. Recommended: concurrent enrollment in Phscs 330.
Newton's laws applied to particles and systems of particles, including rigid bodies. Conservation principles and Lagrange's and Hamilton's equations.

329. Observational Astronomy. (3:2:4) W Prerequisite: Phscs 127 (or 227 and 228).
Basic techniques of observational astronomy, emphasizing practical experience in optical data acquisition and analysis.

330. Computational Physics Lab 2. (1:0:3) F, Sp Prerequisite: Phscs 230; 321 or concurrent enrollment; Math 303 or 334 or equivalent.
Numerical solution of ordinary differential equations, linear algebra and eigenvalues, chaos theory. Applications to dynamics. Introduction to programming in Matlab.

360. Statistical and Thermal Physics. (3:3:0) W Prerequisite: Phscs 222, Math 303 or 334.
Principles of statistical mechanics and thermodynamics, with applications.

391R. Seminar in Current Physics. (1:1:0 ea.) F, W on dem.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) For students engaged in the cooperative education program. F, W, Sp, Su Prerequisite: both department chair's and cooperative education coordinator's consent.

416A. Writing in Physics 1. (1:3:0) W on blk., Sp Prerequisite: completed research for thesis or capstone project.
First part of Phscs 416. Writing scientific and technical articles and proposals. Writing and presentation skills applied to senior thesis or capstone project. Resources and guidelines for publishing in physics.

416B. Writing in Physics 2. (2:3:0) W on blk., Su Prerequisite: Phscs 416A.
Second part of Phscs 416. Writing scientific and technical articles and proposals. Writing and presentation skills applied to senior thesis or capstone project. Resources and guidelines for publishing in physics.

427, 428. Introduction to Astrophysics. (3:3:0 ea.) 427:F; 428:W Prerequisite: Phscs 227, 228.
Principles and observational techniques of astrophysics.

430. Computational Physics Lab 3. (1:0:3) W, Su Prerequisite: Phscs 222, 318, 330.
Static and dynamic boundary value problems, partial differential equations. Applications in electrostatics, thermodynamics, waves, and quantum mechanics. Programming with Matlab.

441. Electrostatics and Magnetism. (3:3:0) F, Sp Prerequisite: Phscs 220, 318.
Classical theory of static electric and magnetic fields.

442. Electrodynamics. (3:3:0) W, Su Prerequisite: Phscs 441.
Maxwell's equations, radiation, interaction of electromagnetic fields with matter, and special relativity.

451. Quantum Mechanics. (3:3:0) F Prerequisite: Phscs 222, 318, or equivalent.
Analytical foundations of quantum mechanics.

452. Applications of Quantum Mechanics. (3:3:0) W Prerequisite: Phscs 451.
Applications of quantum mechanics to atomic, molecular, statistical, condensed-matter, and nuclear physics; elementary particles.

471. Principles of Optics. (3:3:1) F, W Prerequisite: Phscs 123, 220. Recommended: Phscs 318.
Electromagnetic wave phenomena, including polarization effects, interference, coherence, dispersion, ray theory, diffraction; introduction to quantum nature of light. Laboratory component emphasizes applications.

492R. Capstone Project in Applied Physics. (1–3:0:Arr. ea.) F, W, Sp, Su
Senior capstone projects in applied physics. Topic must be approved by department applied physics capstone project coordinator or department chair.

497R. Research in Physics. (1–3:0:Arr. ea.) F, W, Sp, Su

498R. Senior Thesis. (1–3:0:Arr. ea.) F, W, Sp, Su
Individually directed research for seniors. Thesis topic must be cleared by faculty member before registration.

500-Level Graduate Courses (available to advanced undergraduates)

513R. Special Topics in Contemporary Physics. (1–3:3:0 ea.) F, W Prerequisite: instructor's consent.
Topics generally related to recent developments in physics.

529. Advanced Observational Astronomy. (3:3:0) On dem. Prerequisite: Phscs 427, 428.
Advanced techniques of observational astronomy, emphasizing knowledge and skills necessary to carry out observational scientific investigation in astronomy.

545. Introduction to Plasma Physics. (3:3:0) F alt. yr. Prerequisite: Phscs 321, 431, 441.
Introduction to plasma physics, including single-particle motion and both fluid and kinetic models of plasma behavior.

561. (Phscs–Me En) Fundamentals of Acoustics. (3:3:0) F Prerequisite: Phscs 123 or equivalent; Math 303 or 334 or equivalent. Recommended: Phscs 318, 321; or equivalents.
Sound generation, transmission, reflection, and reception. Vibrating systems, elastic media, mechanical energy, and radiation. Sound in tubes and cavities. Acoustic filters. Noise measurement and perception.

571. Laser Physics. (3:3:0) F alt. yr. Prerequisite: Phscs 471 or basic understanding of electromagnetic waves and optics.

Laser amplification, cavity design, and control and characterization of temporal and spatial modes. Applications in nonlinear optics and atomic physics.

581. Solid-State Physics. (3:3:0) W Prerequisite: Phscs 222 or equivalent.

Introduction to the physics of solids. Crystal structure and symmetry, X-ray diffraction, lattice vibrations, metals and semiconductors, superconductivity, thermal properties, magnetic properties, and dielectric and optical properties.

583. Physics of Nanostructures, Surfaces, and Interfaces. (3:3:0) Prerequisite: Phscs 222 or equivalent. Recommended: Phscs 281 or 581 or equivalent; Phscs 451 or Chem 462 or equivalent.

Properties of nanostructures, surfaces, and interfaces; experimental methods. Applications to emerging problems and opportunities in science and technology. Emphasis on concepts.

585. Thin-Film Physics. (3:3:0) W alt. yr. Prerequisite: Phscs 222 or equivalent.

Preparation, characterization, use, and special properties of modern thin films; interdisciplinary treatment. Of interest to students in applied physics and engineering.

587. Physics of Semiconductor Devices. (3:3:0) F Prerequisite: Phscs 281 or 581 or EC En 450.

Device physics, with an in-depth study of the MOS transistor and other nanoscale computing devices.

599R. Academic Internship. (2–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department cooperative education coordinator's consent.

Cooperative education internships off campus.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Physics and Astronomy Faculty

Professors

Allred, David D. (1987) BS, Brigham Young U., 1971; MA, PhD, Princeton U., 1973, 1977.
Berrondo, Manuel (1993) BS, U. of Mexico, 1966; PhD, U. of Upsala, 1969.
Clark, Robert B. (2000) BA, MPhil, PhD, Yale U., 1963, 1966, 1968.
Moody, J. Ward (1990) BS, Brigham Young U., 1980; MS, PhD, U. of Michigan, 1984, 1986.
Rees, Lawrence B. (1986) BS, Brigham Young U., 1976; MS, PhD, U. of Maryland, 1979, 1983.
Sommerfeldt, Scott D. (1995) BM, MS, Brigham Young U., 1983, 1986; PhD, Pennsylvania State U., 1989.
Spencer, Ross L. (1984) BS, Brigham Young U., 1974; MS, PhD, U. of Wisconsin, 1976, 1979.
Stokes, Harold T. (1981) BS, Brigham Young U., 1971; PhD, U. of Utah, 1977.
Taylor, Benjamin J. (1980) BA, PhD, U. of California, Berkeley, 1964, 1969.
Turley, R. Steven (1995) BS, Brigham Young U., 1978; PhD, Massachusetts Inst. of Technology, 1984.

Associate Professors

Bergeson, Scott D. (1998) BS, Brigham Young U., 1990; PhD, U. of Wisconsin, Madison, 1995.
Christensen, Clark G. (1972) BS, Brigham Young U., 1966; PhD, California Inst. of Technology, 1972.
Davis, Robert C. (1998) BS, Brigham Young U., 1989; PhD, U. of Utah, 1996.
Hart, Grant W. (1985) BS, Brigham Young U., 1977; PhD, U. of Maryland, 1983.
Hart, Gus L. (2006) BS, Brigham Young U., 1994; MS, PhD, U. of California, Davis, 1997, 1999.
Hess, Bret C. (1994) BS, Brigham Young U., 1982; PhD, Iowa State U., 1988.
Hintz, Eric (1998) BS, Case Western Reserve U., 1988; PhD, Brigham Young U., 1995.
Hirschmann, Eric W. (2000) BS, Brigham Young U., 1991; PhD, U. of California, Santa Barbara, 1996.
Peatross, Justin B. (1995) BS, MS, Brigham Young U., 1986, 1988; PhD, U. of Rochester, 1993.
VanHuele, Jean-François S. (1988) BS, Teacher's Proficiency, PhD, Brussels Free U., Belgium, 1979, 1983, 1987.

Associate Research Professors

Peterson, Bryan G. (1991) BS, PhD, Brigham Young U., 1978, 1983.
Joner, Michael D. (1981) BS, MS, Brigham Young U., 1979, 1981.

Assistant Professors

Campbell, Branton (2002) BS, Brigham Young U., 1993; MA, PhD, U. of California, Santa Barbara, 1995, 1999.
Durfee, Dallin (2001) BS, Brigham Young U., 1994; PhD, Massachusetts Inst. of Technology, 1999.
Gee, Kent L. (2006) BS, MS, Brigham Young U., 2001, 2002; PhD, Pennsylvania State U., 2005.
Leishman, Timothy W. (2000) BA, Brigham Young U., 1990; PhD, Pennsylvania State U., 2000.
Nielsen, David (2004) BS, MS, Brigham Young U., 1992, 1995; PhD, U. of Texas, Austin, 1999.
Stephens, Denise C. (2007) BS, Brigham Young U., 1996; MS, PhD, New Mexico State U., 1999, 2002.
Vanfleet, Richard R. (2003) BA, Brigham Young U., 1992; MS, PhD, U. of Illinois, 1994, 1997.
Ware, Michael (2004) BS, PhD, Brigham Young U., 1999, 2001.

Assistant Teaching Professor

Merrell, Duane (2004) BS, MEd, Utah State U., 1985, 1988.

Emeriti

Ballif, Jae R. (1962) BS, Brigham Young U., 1953; MA, PhD, U. of California, Los Angeles, 1961, 1962.
Barnett, J. Dean (1958) BA, PhD, U. of Utah, 1954, 1959.
Decker, Daniel L. (1958) BS, MS, Brigham Young U., 1953, 1955; PhD, U. of Illinois, 1958.
Dibble, William E. (1961) BS, PhD, California Inst. of Technology, 1954, 1960.
Dixon, Dwight R. (1959) BS, Utah State U., 1942; PhD, U. of California, Berkeley, 1955.
Dudley, J. Duane (1956) BS, Brigham Young U., 1952; MA, Rice U., 1953; PhD, U. of Utah, 1959.
Evenson, William E. (1970) BS, Brigham Young U., 1965; PhD, Iowa State U., 1968.
Gardner, Andrew L. (1964) BS, Utah State U., 1940; PhD, U. of California, Berkeley, 1955.
Gardner, John H. (1949) BS, Utah State U., 1943; MA, PhD, Harvard U., 1947, 1950.
Hansen, H. Kimball (1963) BS, MS, Brigham Young U., 1957, 1959; PhD, U. of California, Berkeley, 1966.
Harrison, B. Kent (1964) BS, Brigham Young U., 1955; MA, PhD, Princeton U., 1957, 1959.
Hatch, Dorian M. (1968) BS, Utah State U., 1962; MA, PhD, State U. of New York, 1965, 1968.
Jones, Douglas E. (1964) BS, MS, PhD, Brigham Young U., 1957, 1959, 1964.
Knight, Larry V. (1973) BS, MS, Brigham Young U., 1958, 1959; PhD, Stanford U., 1965.
Mason, Grant W. (1970) BA, Brigham Young U., 1961; PhD, U. of Utah, 1969.
McNamara, D. Harold (1955) BS, PhD, U. of California, Berkeley, 1947, 1950.
Merrill, John J. (1971) BS, MS, PhD, California Inst. of Technology, 1955, 1956, 1960.
Nelson, H. Mark (1959) BS, MS, Brigham Young U., 1953, 1954; PhD, Harvard U., 1960.
Palmer, E. Paul (1966) BA, PhD, U. of Utah, 1952, 1956.
Rasband, S. Neil (1972) BA, PhD, U. of Utah, 1964, 1969.
Strong, William J. (1967) BS, MS, Brigham Young U., 1958, 1959; PhD, Massachusetts Inst. of Technology, 1964.
Vanfleet, Howard B. (1960) BS, Brigham Young U., 1955; PhD, U. of Utah, 1961.

Physiology and Developmental Biology

James P. Porter, Chair
574 WIDB, (801) 422-2007

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Physiology and Developmental Biology are open enrollment.

The Discipline

Physiology is the study of the *functions* of the body systems. Developmental biology is the study of how specific genes govern differentiation of cells, tissues, and organs with unique structure and functions. Both disciplines require a firm foundation of mathematics, chemistry, physics, and cellular biology. The related area of biophysics uses the methods of physics, chemistry, mathematics, and biology to investigate the *physical* basis of life.

Upper-division courses require synthesizing and integrating information from many areas of science to allow understanding of such remarkable processes as how the heart pumps blood, how neurons communicate with one another, how insulin regulates blood sugar, and how specific gene products determine the morphology and functional capacity of the nervous system. Knowledge in these areas is expanding rapidly as new techniques are applied in molecular biology. Hence, significant exposure to the concepts and techniques of molecular biology is an important component of the major.

Career Opportunities

A major in physiology and developmental biology prepares students to pursue advanced degrees in either the biological sciences or nonbiological fields or to enter directly into employment. This major provides outstanding preparation for students seeking admittance into professional programs in medicine, dentistry, optometry, podiatry, chiropractic, or pharmacy. Students who have aspirations of doing health-related research will find a challenging, thorough preparaton for entrance into graduate programs and beyond. Graduates of the program will also have the academic and laboratory skills necessary for employment in medical, biotechnological, and pharmaceutical industries. This degree offers students pursuing advanced degrees in business, public management, or law the knowledge and training necessary to be admitted into professional schools and work in governmental agencies, health care and biotechnical industries, and patent or health care law.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Biophysics
BS Physiology and Developmental Biology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Note: For the neuroscience program, see the Neuroscience Center section of this catalog.

Graduate Programs and Degrees

MS and PhD degrees are offered. For information see the BYU 2007–2008 Graduate Catalog and the Web page for the College of Biology and Agriculture.

BS Biophysics (65.5–66.5 hours*)

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete the following chemistry courses:
   Chem 105, 106, 107, 351, 352, 353 (1 hour), 462, 481.
3. Complete one course from the following:
   Chem 461, 468.
4. Complete one of the following options (the Phscs 121 sequence is strongly recommended):
   Either Phscs 121, 123, 140, 220
   Or Phscs 105, 106, 107, 108, 140.
5. Complete the following major core courses:
   PDBio 362, 363, 455R.
6. Complete the following capstone course:
   PDBio 568.
7. Complete 10 hours from the following. At least 5 hours must come from the mentored experience and at least 3 hours from electives.
   a. Mentored laboratory experience (must be in an approved biophysics lab):
      PDBio 494R, 495R.
   b. Electives
      Chem 223, 227, 482, 581, 583, 584, 586.
      EC En 301.
      MMBio 430, 441, 442.
      Neuro 480.
      PDBio 325, 365, 450R, 482, 484, 550R, 561, 565.
      Phscs 145, 230, 240.

Recommended Courses

Professional schools and graduate programs may require additional courses not required for this major, such as calculus or statistics. Contact the programs to which you may apply to determine the specific courses required.

Students considering professional or graduate degrees should take at least two semesters of mathematical courses. The recommended sequences are:

1. Math 119, Stat 221 for students who want exposure to calculus and statistics.
2. Math 112, 113 for students who want a firm foundation in calculus.
3. Math 112, 113, Stat 221 for students who want a firm foundation in both calculus and statistics.

*Hours include courses that may fulfill university core requirements.

BS Physiology and Developmental Biology

(65–66 hours*)

Major Requirements

1. Complete the following biology core courses:
   Biol 120, 240, 241, 340, 360, 420.
2. Complete the following chemistry and physics courses:
   Chem 105, 106, 107, 351, 352, 481.
   Phscs 105, 106.
3. Complete the following major core courses:
   PDBio 220, 325, 362, 363, 455R, 482.
4. Complete one course from the following:
   PDBio 365, 484.
5. Complete one course from the following advanced molecular biology courses:
   MMBio 430, 441.
6. Complete one course from the following capstone courses:
   Neuro 480.
   PDBio 561, 562, 565, 568, 582.
7. Complete 6.5 hours from the following courses, including at least 1 hour from the mentored experience list and at least 2 hours from the advanced laboratory requirement list.
   a. Mentored experience:
      PDBio 349R, 494R, 550R.
   b. Advanced laboratory experience:
      Chem 581, 583, 584, 586.
      MMBio 442.
      PDBio 399R, 495R.
   c. Elective courses (courses used to fill any requirements listed above cannot count for this requirement):
      Biol 220, 350, 421.
      Chem 482, 581, 583, 584, 586.
      InBio 370.
      MMBio 352, 430, 441, 442, 452.
      Neuro 480.
      PDBio 320, 365, 450R, 455R, 484, 561, 562, 565, 568, 582.

Recommended Courses

Professional schools and graduate programs may require additional courses not required for this major, such as Phscs 107, 108, Chem 353, calculus, or statistics. Contact the programs to which you may apply to determine the specific courses required.

Students considering professional and graduate degrees should take at least two semesters of mathematical courses. The recommended sequences are:

1. Math 119, Stat 221 for students who want exposure to calculus and statistics.
2. Math 112, 113 for students who want a firm foundation in calculus.
3. Math 112, 113, Stat 221 for students who want a firm foundation in both calculus and statistics.

*Hours include courses that may fulfill university core requirements.

Physiology and Developmental Biology (PDBio)

Undergraduate Courses

205. Human Biology. (3:3:0) For nonbiology majors. F, W
Body systems and influence of heredity.

210. Human Anatomy (without lab). (3:3:0) Independent Study only.
Structure and function of the human body. No lab included.

220. Human Anatomy (with lab). (3:2:2) F, W, Su
Structure and function of the human body. Lab included.

305. Human Physiology (with lab). (4:4:2) F, W, Sp Prerequisite: Chem 101 or equivalent. Recommended: a general biology course.
Function of body organ systems. Not acceptable for physiology and developmental biology, biophysics, or neuroscience majors. Designed for students with basic chemistry/no molecular biology. Students with chemistry/molecular biology should take PDBio 362.

320. Dissection Techniques in Human Anatomy. (1:0:3) On dem. Prerequisite: PDBio 220.
Techniques of human cadaver dissection.

325. Tissue Biology (with lab). (3:2:3) F, W Prerequisite: Biol 120.
Human anatomy and histology; function of cells in tissue; early stages of embryology.

349R. Physiology and Developmental Biology Teaching Seminar. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: grade B or above in the specific physiology and developmental biology course; instructor's consent.
Undergraduate students teaching small help sections for lecture portion of physiology and developmental biology courses or helping to teach departmental student lab.

362. Advanced Physiology. (3:3:1) F, W, Sp Prerequisite: Biol 240; Phscs 106 or 220.
Integrated approach to organ system and cellular physiology. Problem solving/calculations. Requires background in chemistry and molecular biology. Students without this background should take PDBio 305.

363. Advanced Physiology Laboratory. (1:0.5:1.5) F, W, Sp Prerequisite: PDBio 362 or concurrent enrollment; or instructor's consent.
Experiments and exercises in advanced physiology emphasizing human physiology. Computer simulations of muscle function, endocrine disease, and human physiology. Problem solving and calculations.

365. Pathophysiology. (4:4:0) F, W, Sp Prerequisite: PDBio 305 or 362.
Variations in physiological mechanisms that account for development of common disturbances in normal control and activities of body's organs and organ systems.

399R. Academic Internship: Physiology and Developmental Biology. (1–9:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department cooperative education coordinator's consent.
On-the-job experience in off-campus laboratories related to physiology, biophysics, or developmental biology.

450R. Topics in Physiology and Developmental Biology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Subjects may include:
—Protein Expression in Bacteria
—Techniques in Embryology
—Clinical Pharmacology
—Herbal Pharmacology

455R. Physiology and Developmental Biology Seminar. (0.5:1:0 ea.) F, W
Seminar (research) presentations for undergraduates in physiology and developmental biology.

482. Developmental Biology. (3:3:1) F, W Prerequisite: Biol 240, 241, 360. Recommended: PDBio 225.
Invertebrate and vertebrate developmental biology. Embryonic gastrulation, neurulation, patterning, etc. Modern approaches and research strategies. Gene function, cell signaling, signal transduction during embryogenesis.

484. Human Embryology. (3:3:0) F Prerequisite: Biol 360 or equivalent. Recommended: PDBio 225.
Developmental milestones of prenatal life; etiology of congenital malformations, emphasizing molecular and cellular changes and their functional consequences.

494R. Undergraduate Research in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) F, W, Sp, Su
Basic (entry-level) research laboratory experience for students interested in physiology and developmental biology.

495R. Advanced Undergraduate Research in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) F, W, Sp, Su
Prerequisite: 2 credit hours of PDBio 494R.
Senior-level research laboratory experience for majors in physiology and developmental biology.

499R. Senior Honors Thesis. (1–3:Arr.:Arr. ea.) F, W, Sp, Su
Honors thesis. Topic to be cleared with Honors Program and Physiology and Developmental Biology Department.

500-Level Graduate Courses (available to advanced undergraduates)

550R. Advanced Topics in Physiology and Developmental Biology. (1–4:Arr.:Arr. ea.) On dem. Prerequisite: instructor's consent.
Close interaction between small groups of students and instructor on topics in physiology, developmental biology, or biophysics.

561. Physiology of Drug Mechanisms. (3:2:3) F Prerequisite: PDBio 362 or instructor's consent.
Overview of physiological and pharmacological mechanisms and principles of human therapeutics as applied to clinically significant pathophysiology.

562. Reproductive Physiology. (3:3:0) F even yr. Prerequisite: PDBio 362 or equivalent. Recommended: Chem 481, PDBio 482, or equivalents.
Mammalian reproductive physiology.

565. Endocrinology. (3:3:0) W Prerequisite: PDBio 362 or instructor's consent.
Mammalian hormones.

568. Cellular Electrophysiology and Biophysics. (3:2:3) F Prerequisite: PDBio 362 or instructor's consent.
Using electrophysiology and biophysics as an approach to study of physiology. Extensive look at ion channels and cell signaling.

582. Developmental Genetics. (3:3:0) W Prerequisite: PDBio 482 or equivalent.
Gene function and regulation during cell specification and differentiation, pattern formation, and organogenesis in developing embryo.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Physiology and Developmental Biology Faculty

Professors
Bell, John D. (1990) BS, Brigham Young U., 1982; PhD, U. of California, San Diego, 1987.
Busath, David D. (1995) BA, MD, U. of Utah 1974, 1978.
Judd, Allan M. (1991) BS, MS, Brigham Young U., 1973, 1978; PhD, West Virginia U., 1982.
Lephart, Edwin D. (1994) BS, MS, Brigham Young U., 1979, 1982; PhD, U. of Texas Southwestern Medical Center, Dallas, 1989.
Porter, James P. (1998) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of California, San Francisco, 1982.
Rhees, Reuben Ward (1973) BS, U. of Utah, 1967; PhD, Colorado State U., 1971.
Seegmiller, Robert E. (1972) BS, MS, U. of Utah, 1965, 1967; PhD, McGill U., Canada, 1970.
Winder, William W. (1982) BS, PhD, Brigham Young U., 1966, 1971.
Woodbury, Dixon J. (2001) BA, U. of Utah, 1980; PhD, U. of California, Irvine, 1986.
Woolley, Bruce H. (1977) BS, U. of Utah, 1965; PharmD, U. of Southern California, 1972.

Associate Professors
Kooyman, David L. (1997) BS, MS, California State Polytechnic U., Pamona, 1982, 1986; PhD, Ohio U., 1993.
Silcox, Roy W. (1992) BS, Brigham Young U., 1981; MS, PhD, North Carolina State U., 1984, 1986.

Assistant Professors
Barrow, Jeffery R. (2003) BS, Brigham Young U., 1990; PhD, U. of Utah, 1999.
Brown, Michael D. (2003) BS, Brigham Young U., 1993; MS, PhD, Colorado State U., 1998, 1999.
Edwards, Jeffrey G. (2007) BS, Brigham Young U., 1994; PhD, U. of Utah, 2003.
Hansen, Marc D. (2005) BS, Brigham Young U., 1997; PhD, Stanford U., 2002.
Stark, Michael R. (2001) BS, Brigham Young U., 1992; MS, Idaho State U., 1994; PhD, U. of California, Irvine, 1998.
Sudweeks, Sterling N. (2001) BS, Brigham Young U., 1992; PhD, U. of Utah, 1997.

Part-Time Faculty
Duane R. Winden.

Emeriti
Allen, A. Lester (1954) BA, PhD, U. of California, Los Angeles, 1946, 1951.
Anderson, Ferron L. (1967) BS, MS, Utah State U., 1957, 1960; MS, U. of Illinois, 1962; PhD, Utah State U., 1963.
Bloxham, Don D. (1978) BS, MS, Idaho State U., 1967, 1969; PhD, Louisiana State U., 1973.
Heninger, Richard W. (1966) BS, Brigham Young U., 1957; MS, PhD, Oklahoma State U., 1959, 1961.
Jaussi, August W. (1962) BS, U. of Idaho, 1953; MS, Brigham Young U., 1955; PhD, Oklahoma State U., 1960.
Smith, Lamont W. (1970) BS, Brigham Young U., 1960; MS, U. of Wisconsin, Madison, 1962; PhD, West Virginia U., 1970.
Whitehead, Armand T. (1969) BS, Brigham Young U., 1965; PhD, U. of California, Berkeley, 1969.

Plant and Animal Sciences

Val J. Anderson, Chair
275 WIDB, (801) 422-3527

College of Biology and Agriculture Office of Academic Advisement
379 WIDB, (801) 422-3042

Admission to Degree Program

All degree programs in the Department of Plant and Animal Sciences are open enrollment.

The Discipline

Disciplines in the Department of Plant and Animal Sciences focus on four of the great dilemmas facing mankind in the twenty-first century: harnessing biological technology to meet the needs of an expanding human population in the developing world; assessing and minimizing the impact of human activities on an increasingly vulnerable environment; managing and conserving wildlife and wildlands; and adapting urban landscaping to meet increasing water, space, and other resource limitations while enhancing the aesthetic quality of urban environments.

Majors offered provide a flexible education for directly entering the job market or preparing for professional schools in business, engineering, the health professions (medical and dental schools), landscape architecture, law, public administration, or science.

Wildlife and wildlands conservation is directed at managing wildland ecosystems—optimizing the function and services of natural ecosystems. Students are educated in wildland plants, animals, soils, and ecology, as well as wildlife and land management techniques. This focused approach not only qualifies students for four federal job series occupations but also prepares them to work for a wide array of government and private land-management and conservation agencies.

Career Opportunities

Bio-Agribusiness Management
This intercollege program involving the Marriott School of Management combines a strong science education with business fundamentals. The **biotechnology business emphasis** prepares students for management positions in the burgeoning agricultural biotechnology industry or for graduate study in the biological sciences, law, or business. The **agricultural emphasis** prepares for employment in multiple agribusiness enterprises or for advanced degrees in business or law.

Biotechnology
The biotechnology major educates students in scientific principles and biotechniques used to genetically improve economically important plants and animals. This field holds tremendous promise for meeting the food and fiber needs of the developing world. Students are prepared for immediate employment or for graduate study in plant and animal biotechnology, molecular biology, genetics, or the health professions.

Environmental Science
Students majoring in environmental science learn a broad combination of chemistry, engineering, geology, geography, and plant and soil sciences to help them solve environmental problems. They are prepared for graduate study and direct employment in fields dealing with assessing and remediating human-induced environmental impacts, as well as for careers in law, business, and the health professions.

Landscape Management
This program is accredited by the Professional Landcare Network (PLANET), the leading professional organization in landscape horticulture management. The major combines practice and instruction in horticultural science, business, and landscape design to prepare students for graduate studies in business, law, landscape architecture, and horticulture, or for direct employment as managers in the growing urban horticulture industry.

Plant Biology
Plant biology students are prepared for a variety of graduate programs emphasizing science (e.g., agronomy, ecology/evolution, horticulture, and molecular biology/biochemistry), the health professions, law, and business.

Wildlife and Wildlands Conservation
This degree program qualifies students for federal job series employment in wildlife biology, range conservation, ecology, zoology, and botany. It also prepares for graduate programs in renewable natural resources and for eventual professional affiliations with state wildlife agencies and a number of federal agencies, including the U.S. Forest Service, Bureau of Land Management, Natural Resource Conservation Service, Fish and Wildlife Service, and Park Service. Graduates are well prepared to deal with complex issues involving wildlife and wildlands management and the overall conservation of natural resources.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Bio-Agribusiness Management
	Emphases:
	Agricultural Management
	Biotechnology Business
BS	Environmental Science
BS	Genetics and Biotechnology
BS	Landscape Management
BS	Plant Biology
BS	Wildlife and Wildlands Conservation
Minor	Landscape Management

Students should visit the college advisement center for help or information concerning the undergraduate programs. Undergraduate advisement in major requirements is available from departmental faculty (assigned advisor).

Graduate Programs and Degrees

MS	Agronomy
MS	Genetics and Biotechnology
MS	Wildlife and Wildlands Conservation
PhD	Wildlife and Wildlands Conservation

For more information see the BYU 2007–2008 Graduate Catalog.

BS Bio-Agribusiness Management: Agricultural Management Emphasis (60 hours*)

Major Requirements

1. Complete the following agribusiness management core courses:
   Acc 200.
   Bus M 300, 488, 489.
   Econ 110, 210.
   Org B 320.
   PAS 391R.
   Stat 221.

2. Complete one course from the following:
   Bus M 371R, 380, 382.
3. Complete at least 1 hour of the following:
   PAS 199R.
4. Complete the following agricultural management courses:
   Chem 105, 152.
   InBio 370.
   NDFS 330.
   PAS 282.
5. Complete 19 hours from the following elective courses:
   Biol 120, 220.
   IAS 220, 420.
   InBio 341, 380, 525.
   MMBio 221.
   PAS 100, 215, 283, 301, 305, 306, 331, 369, 390R, 431, 440.
   PDBio 562.

Recommended Courses for Students Interested in Crop Management

PAS 100, 282, 283, 301, 305, 331, 369, 431.

Recommended Courses for Students Interested in Livestock Management

Biol 220.
InBio 380.
PAS 215.
PDBio 562.

*Hours include courses that may fulfill university core requirements.

BS Bio-Agribusiness Management: Biotechnology Business Emphasis (61 hours*)

Major Requirements

1. Complete the following agribusiness management core courses:
   Acc 200.
   Bus M 300, 488, 489.
   Econ 110, 210.
   Org B 320.
   PAS 199R, 391R.
   Stat 221.
2. Complete one course from the following:
   Bus M 371R, 380, 382.
3. Complete the following biotechnology business courses:
   Biol 120, 220, 240, 241, 340, 360.
   Chem 105, 106, 285.
   InBio 370.
   PAS 265, 310R, 485, 487.

Recommended Courses

IAS 220, 420.
InBio 380.
PAS 282, 283, 305, 306, 390R, 440.
PDBio 562.

*Hours include courses that may fulfill university core requirements.

BS Environmental Science (58–59 hours*)

Major Requirements

1. Complete the following environmental science core courses:
   Biol 150.
   PAS 282, 283, 303, 305, 340, 375, 491R.
2. Complete one course from the following:
   InBio 450.
   PAS 490, 494R (2 hours required).
3. Complete the following biology courses:
   Biol 120, 220, 350.
4. Complete at least 6 hours of the following supporting core courses:
   Chem 105 or 101; 106; 107 or 103; 152 or 351.

   Note: Recommended courses for graduate school track or preprofessional track: Chem 105, 106, 107, 351, 352, 353.
5. Complete a minimum of 24 hours (9 hours maximum of lower-division courses) from the following:
   Biol 240, 241, 340, 360.
   Chem 223, 227, 285, 351, 352, 353, 481.
   Econ 440.
   Geog 101, 212, 303, 305, 306, 307, 310, 311, 331, 412.
   Geol 101, 111, 404, 435.
   InBio 370.
   Math 112 or 119; 302, 303.
   MMBio 221.
   PAS 215, 225, 306, 310R, 330, 331, 355, 390R, 402, 411, 416, 419, 511, 514.
   Phscs 105 or 121; 106 or 123; 107, 108.
   Phil 205.
   Pl Sc 535, 536.
   Stat 221.

Federal Register Requirements

The federal register requirements for environmental science ecology or physical science can be met by choosing appropriate electives. Ecology requires 30 semester hours of basic and applied biology, including at least 9 semester hours of ecology and 12 hours of physical and mathematical sciences. Physical science requires 25 semester hours of physical sciences (chemistry, physics, math, etc.)

Recommended courses from list of electives for various emphases:

A. Environmental Science (Physical Science Emphasis)
   Complete 14 hours from the following:
   Econ 440.
   Geog 101, 212, 412.
   Geol 111, 435.

B. Environmental Science (Ecology Emphasis)
   Complete 18 hours from the following:
   InBio 370.
   PAS 215, 225, 330, 355, 411, 416, 419.

Preprofessional students should consult with the Preprofessional Advisement Center (3326 WSC) to determine which additional courses they will be required to complete.

The following courses are recommended for students who plan to pursue graduate degrees in environmental science.
Chem 351, 352, 353, 481.
Math 119 or higher.
Phscs 105, 106, 107, 108.

*Hours include courses that may fulfill university core requirements.

BS Genetics and Biotechnology (61–65 hours*)

Major Requirements

1. Complete the following core courses:
   Biol 120, 220, 240, 241, 340, 360, 420.
2. Complete one course from the following:
   InBio 380.
   PAS 440.
   PDBio 362.

3. Complete the following general core courses:
   Chem 105, 106, 107, 351, 352, 481.
   And complete one course from the following:
   Math 112, 119.
4. Complete the following genomics and biotechnology core courses:
   PAS 265, 310R (2 hours required), 410.
5. Complete one course from the following:
   MMBio 460.
   PAS 485.
   PDBio 482.
6. Complete one course from the following:
   PAS 486, 487.
7. Complete 11–12 hours of elective credit from the following:
   Biol 350, 421.
   Chem 482, 489.
   InBio 331, 365, 370, 430, 450, 465, 560.
   MMBio 221, 390R, 430, 441, 442, 460, 461, 463, 465, 490R, 554.
   NDFS 330.
   PAS 199R, 282, 283, 301, 305, 306, 331, 369, 390R, 431, 490, 494R, 514, 525, 559, 575, 580.
   PDBio 225, 363, 482, 562, 582.
   Stat 221.

Recommended Courses

PAS 100, 282 (for plant biotechnology students).
PDBio 562 (for animal biotechnology students).
Phscs 105, 106 (107, 108) (for graduate school preparation in biotechnology).

*Hours include courses that may fulfill university core requirements.

BS Landscape Management (62.5–64.5 hours*)

Major Requirements

1. Complete the following required departmental courses:
   PAS 100, 103, 105, 198R, 199R, 211, 212, 214, 282, 283, 301, 319, 320, 331, 391R, 402, 431.
2. Complete the following required non-departmental courses:
   Acc 200.
   Bus M 300, 488, 489.
   Econ 110.
   InBio 430.
   I Sys 100, 101.
   And complete one course from the following:
   Chem 101, 105.
3. Complete one course from the following:
   InBio 235.
   PAS 112, 210, 213, 330, 380.

Recommended Courses

A management minor is *strongly* recommended.

Completion of the following courses (some listed above) will meet the requirements for this minor:
Acc 200.
Bus M 300, 371R, 489.
Econ 110.
Math 110.
Org B 320.
Stat 221.

The following courses are also suggested:
Bus M 372.
TMA 150.

The ability to speak Spanish is highly valuable to those pursuing careers in landscape management. The following courses are therefore recommended:
Span 101, 102, 105.

For students planning to pursue a master's degree in landscape architecture (MLA), the following courses are also recommended:
Biol 350.
CM 105.
Geog 212.
PAS 380.
VAStu 103.

For students planning to pursue a master's degree in horticulture science (MS), the following courses are recommended:
Biol 350.
Chem 106, 107, 351, 352, 481.
Math 119 or Stat 221.
Phscs 105, 106.
PAS 305, 369, 390R, 440, 494R, 511.

*Hours include courses that may fulfill university core requirements.

BS Plant Biology (62–68 hours*)

Major Requirements

1. Complete the following core courses:
   Biol 120, 220, 240, 241, 340, 350, 360, 420.
2. Complete the following:
   Chem 105, 106, 107.
3. Complete one of the following options:
   Either Chem 152, 285
   Or Chem 351, 352, 481.
4. Complete one course from the following:
   Math 112, 119.
   Stat 221.
5. Complete the following major core courses:
   InBio 430.
   PAS 100, 282, 283, 310R, 440.
6. Complete a minimum of 7 hours from the following (see the suggested tracks below):
   Biol 421.
   Chem 482.
   InBio/PAS 265.
   InBio 331.
   PAS 301, 303, 305, 306, 330, 331, 369, 486.
7. Complete an additional 5–6 hours from the following list or from item 6 above:
   InBio 235, 341, 441, 450, 580, 581.
   PAS 198R, 199R, 210, 310R, 355, 402, 416, 431, 485, 494R, 575.

Suggested Tracks That Prepare for Graduate Study

1. Agronomy:
   Chem 105, 106, 107, 351, 352.
   PAS 303, 305, 306, 331, 369, 431, 440.
   Stat 221.
   Recommended additional courses:
   Chem 481.
   Phscs 105, 106.
2. Plant molecular/Cell biology/Biochemistry:
   Chem 105, 106, 107, 351, 352, 481, 482.
   InBio 331.
   InBio/PAS 265.
   PAS 486.

Recommended additional courses:
PAS 494R or InBio 490R (2 hours minimum).
Phscs 105, 106.
Competency in both calculus and statistics.

3. Plant ecology and evolution:
Chem 105, 106, 107; 152 and 285 or 351 and 352.
InBio 235, 310, 331, 355, 356.
PAS 440.
Recommended additional courses:
Phscs 105, 106.
Competency in both calculus and statistics.

4. Horticultural science:
Chem 105, 106, 107, 351, 352.
InBio 331.
PAS 301, 302, 305, 306, 331, 369, 431, 440.
Recommended additional courses:
Chem 481.
Phscs 105, 106.
PAS 198R or 199R.

*Hours include courses that may fulfill university core requirements.

BS Wildlife and Wildlands Conservation (64 hours*)

The Discipline

This degree program qualifies students for federal job series employment in wildlife biology, range conservation, zoology, and botany. It also prepares for graduate programs in renewable natural resources and for eventual professional affiliations with state wildlife agencies and a number of federal agencies, including the U.S. Forest Service, Bureau of Land Management, Fish and Wildlife Service, and Park Service. Graduates are well prepared to deal with complex issues involving wildlife and wildlands management and the overall conservation of natural resources.

Major Requirements

1. Complete the following:
Biol 120, 220, 350.
NDFS 330.
PAS 282, 283, 440.

2. Complete the following:
InBio 341, 430, 447, 450.
PAS 115, 215, 225, 330, 355, 357, 411, 416, 417, 419, 424, 446.

Recommended Courses for Graduate School Track

Biol 240, 340.
Chem 105, 106 and either Chem 152 or 351.
Phscs 105, 106; or equivalents.

Recommended Courses for Preprofessional Track

Chem 105, 106, 107, 351, 352, 353.
Phscs 105, 106, 107, 108.
PDBio 305 or 362 or InBio 380.

GIS Applications

Students interested in GIS applications should consider a minor in geographic information systems (20–23 hours). See the Geography Department for details.

*Hours include courses that may fulfill university core requirements.

Minor Landscape Management (17.5–18 hours*)

Minor Requirements

1. Complete the following:
PAS 103, 214, 282, 391R.

2. Complete one course from the following:
PAS 198R, 199R.

3. After consulting with a faculty advisor, complete 8 hours from the following:
Design
PAS 101, 112, 213, 380.
Installation
PAS 211, 212, 283, 319, 320.
Maintenance
PAS 210, 283, 319, 320, 431.

Note: Electives need not be taken from the same emphasis to fill this requirement.

Note: PAS 100 will substitute for 3 hours under the elective requirement.

Plant and Animal Sciences (PAS)

Undergraduate Courses

100. Living With Plants. (3:3:0) F, W, Sp
Physiological, morphological, and ecological characteristics of plants used for food, fiber, and aesthetic enhancement.

103. Residential Landscape Design. (3:3:0) F, W
Design and composition as applied to development of residential grounds.

105. Landscape Design Graphics. (2:2:0) W Prerequisite: PAS 103.
Communication through descriptive drawing and professional plan graphics: plan views, elevation, color, and computer-aided design.

112. Floral Design. (3:2:2) F, W, Sp
History and principles of floral design; identification, care, and handling of cut flowers; techniques of arranging flowers and other plant materials for home and professional use. Fee.

115. Introduction to Wildlife and Wildlands Conservation. (1:1:0) F
Assisting students in choosing individual professions and curricula.

198R. BYU Grounds Practicum. (0.5:0:0) F, W, Sp, Su Prerequisite: instructor's consent; concurrent employment with BYU Grounds Department.
Multiple horticultural experiences through collaboration with BYU Grounds.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

210. Herbaceous Plants. (2:2:0) F
Identification and landscape use of flowers and groundcovers.

211. Landscape Structures. (2:2:0) F 1st blk. Prerequisite: PAS 103.
Theory and mechanics of hardscape design and construction.

212. Landscape Laboratory. (1:0:2) F 2nd blk. Prerequisite: PAS 211.
Working methods of the landscape industry: irrigation, equipment, and materials.

213. Interior Landscapes. (2:2:0) F, W Recommended: PAS 103.
Design and management of interior landscapes; identification and culture of indoor plants; drawing and computer-aided design.

214. Landscape Bidding and Estimating. (2:2:0) W Prerequisite: Math 110 or equivalent; PAS 103.
Competitive bidding strategies, quantity takeoffs, bid analyses for landscape construction and maintenance.

215. Principles of Range Management. (3:3:0) W
Overview of rangeland resources and management principles, including rangeland classification, multiple use management, natural resource policy, and grazing management.

225. Principles of Wildlife Ecology and Management. (3:3:0) F Prerequisite: Biol 100.
Skillfully applying knowledge and ethics to preserving, enhancing, and regulating wildlife populations and habitats.

265. (PAS-InBio) Genomics. (3:2:1) F, W Prerequisite: bioinformatics major status or Biol 120.
Introduction to genomics and genome projects (human, plant, bacterial, yeast, parasites). Introduction to genes and genomes; computational and statistical approaches for analyzing genomic data, including genome sequencing and annotation, gene expression and the transcriptome, proteomics and functional genomics, and genetic variation and SNPs.

282. Introduction to Soil Science. (3:3:0) F, W, Sp Prerequisite: concurrent enrollment in PAS 283 for all majors. Recommended: one semester of college chemistry and Math 110.
Physical, chemical, and microbiological properties of soils that affect plant growth in natural, agricultural, and urban environments.

283. Introduction to Soil Science Laboratory. (1:0:3) F, W, Sp Prerequisite: PAS 282 or concurrent enrollment.
Laboratory techniques in determining soil physical, chemical, and fertility properties.

301. Plant Growth and Reproduction. (3:2:2) W Prerequisite: PAS 100 or equivalent.
Scientific principles of plant propagation by seeds, cuttings, budding and grafting, and tissue culture.

303. Soils Conservation and Resources. (3:3:0) F Prerequisite: PAS 100 or equivalent; PAS 282, Chem 105 (or 101), Math 110 or equivalent. Recommended: Geol 111.
Taxonomy of world soils; conservation and management of agricultural, wildland, wetland, and urban soils.

305. Soils and Water Quality. (3:3:0) W Prerequisite: PAS 100 or equivalent, PAS 282, Chem 105 (or 101), Math 110 or equivalent.
Principles and practices of safe agricultural and urban waste management; amendments and nutrients, including remediation methods for conserving soils and water quality.

306. Soil Fertility and Plant Nutrition Laboratory. (1:0:3) W Prerequisite: PAS 305 or concurrent enrollment.
Laboratory for studying nutrient-supplying power of soils, nutrient deficiencies and toxicities, and plant adaptation to nutritional stresses.

310R. Mentored Laboratory Techniques. (1–3:0:Arr. ea.) F, W, Sp, Su Prerequisite: Chem 107 or equivalent; instructor's consent.
Juniors or seniors in plant and animal sciences majors receive mentored training in plant, soil, and/or biotechnology lab instrumentation and protocols.

319. Turf Science. (2:1:2) F Prerequisite: PAS 100.
Management of turf relative to climate, soil, and use on the golf course, park, and private areas.

320. Arboriculture. (3:3:0) W Prerequisite: PAS 100, 282. Recommended: InBio 205.
Biology and culture of woody plants for use in urban landscapes.

330. Wildland Plant Identification and Ecology. (3:2:3) W
Identification, characteristics, phenology, distribution, site adaptation, forage value, and response to management of significant range and pasture plants.

331. Science of Plant Pest Control. (3:3:0) W Prerequisite: PAS 100, 282; or equivalents.
Identifying important insect, disease, and weed pest problems. Pest classification, biology, and methods of control.

340. Air Pollution and Air Quality. (3:3:0) F
Biogenic and anthropogenic factors influencing air pollution and air quality. How various compounds (COx, SOx, NOx, particulate matter, ozone, etc.) are generated and influence air quality. Other topics include global warming, coal-fired power generation, transportation-derived pollutants, smog, acid rain, ozone depletion, etc.

355. Wildland Vegetation Measurements and Analysis. (3:2:3) F even yr. Recommended: Stat 221, Engl 316.
Field methodologies for vegetation inventories and analysis (density, biomass, cover, frequency, utilization, etc.) in wildland settings.

357. Wildlife Methods. (3:2:3) W odd yr. Recommended: Biol 350, PAS 355.
Measurement techniques for inventorying wildlife species and their habitats.

369. Science of Plant Production. (4:4:0) F Prerequisite: PAS 100, 282 or equivalent.
Scientific principles of crop production related to agronomic and horticultural plants, including relationship of management principles and physiological processes in plants.

375. Environmental Policies and Laws. (2:2:0) W Prerequisite: Biol 150.
Environmental laws (Clean Water Act, Clean Air Act, etc.) and the regulations (National Environmental Policy Act, Nutrient Management Plan, etc.) established in the USA to improve environmental quality.

380. Plant Community Design. (2:2:0) W Prerequisite: PAS 103, 105, InBio 235.
Design and ecology of thematic plant communities.

390R. Special Topics in Plant and Animal Sciences. (1–3:Arr.:0 ea.) F, W
Various topics of importance in plant and animal sciences.

391R. Careers in Plant and Animal Sciences. (1:1:0 ea.) F For sophomores and juniors.
Current information on internships, career options, and employment preparation skills in the plant and animal sciences.

402. Urban Soils and Water. (4:4:0) F Prerequisite: PAS 100, 282.
Principles of water management, soil physics, and soil fertility used in a problem-solving environment addressing current challenges in managing soils and water in the urban landscape.

410. Advanced Biotechnology Instrumentation. (2:0:6) F, W, Sp, Su Prerequisite: PAS 310R.
Laboratory experiences using advanced biotechnology and genomics instrumentation and protocols.

411. Watershed Management. (3:2:3) F even yr. Prerequisite: Biol 350.
Processes and management of the hydrologic cycle on forests and rangelands. Field trips required.

416. Wildland Vegetation Improvement. (3:2:3) F odd yr. Prerequisite: Biol 350, PAS 311.
Habitat improvement for domestic and wild animals. Plant control by mechanical equipment, herbicides, and prescribed fire. Restoration of disturbed lands. Field trips required.

417. Natural Resource Planning and Conflict Resolution. (3:2:3) F odd yr. Prerequisite: PAS 215, 225, Biol 350.
Development of a multiple-use natural resource plan for watershed, forestry, recreation, wildlife, and livestock. Policies that govern planning and conflict resolution.

419. Forest Management and Ecology. (3:2:3) F even yr.
Managing forests, emphasizing ecosystem management. Field trips required.

424. Wildlife Law Enforcement. (3:3:0) W Prerequisite: Biol 100 or equivalent.
Current and historical principles of federal and state wildlife law enforcement, case development, evidence, evaluation, human rights, and testimony.

431. Integrated Management of Plant Pests. (3:2:3) F Prerequisite: PAS 100, 282, 331.
Diagnosing, identifying, and managing weed, insect, and disease problems in plants. Integrated pest management solutions. Proper pesticide management and safety.

440. Plant Physiology. (3:3:0) F, W Prerequisite: GE Biological Science requirement; college chemistry. Recommended: Chem 285; or 351, 352.
Photosynthesis, respiration, water relations, mineral nutrition, growth of flowering plants.

446. (PAS–InBio) Ornithology. (3:2:3) W Prerequisite: InBio 341.
Avian systematics, evolution, distribution, and natural history. Two three-day field trips required.

485. Plant Breeding and Biotechnology. (2:2:0) F Prerequisite: Biol 372.
Introduction to modern plant improvement through selective breeding and application of plant biotechnology.

486. Plant Cell Biology. (2:2:0) W Prerequisite: Biol 360.
Aspects of cell biology unique to plant organisms, emphasizing current research through study of published scientific literature.

487. Readings in Animal Biotechnology. (2:2:0) W Prerequisite: Biol 240.
Discussion of assigned literature in animal biotechnology.

490. Case Studies. (2:1:2) F alt. yr. Prerequisite: PAS 282.
Contemporary agricultural and environmental problems using decision case studies dealing with environmental technology issues and analysis.

491R. Undergraduate Seminar. (1:1:0 ea.) W
Current information in the plant and animal sciences.

494R. Mentored Learning Experience. (1–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: supervisor's consent.
Topics vary. Registration required for mentored experiences.

500-Level Graduate Courses (available to advanced undergraduates)

511. Soil Physics. (3:3:0) W even yr. Prerequisite: PAS 282, Chem 105, Math 112 or 119; or equivalents. Recommended: Phscs 105 or 121, or equivalent.
Physical relationships of water, heat, and gases in soils; physical and chemical properties of clays. Mathematical modeling of physical properties and transport processes.

514. Soil Microbiology. (2:2:3) W odd yr. Prerequisite: Chem 106, 107; or equivalents.
Ecology and role of soil microorganisms in nutrient cycling, decomposition of organic matter and waste materials, and degradation of agricultural chemicals in soil.

515. Agrostology: Taxonomy and Ecology of Grasses. (3:2:3) W even yr. Prerequisite: InBio 230 or equivalent.
Classification and ecology of grasses, emphasizing important forage species.

520. Saline and Sodic Soils. (3:2:3) F even yr. Prerequisite: PAS 305, Chem 105, 106, 107; or equivalents.
Physical and chemical properties of saline and sodic soils and irrigation waters—their diagnosis, reclamation, and management for sustainable crop production.

525. Plant Development. (3:3:0) F odd yr. Prerequisite: Biol 360 or equivalent; PAS 486 or equivalent.
Molecular and genetic interactions in plant development.

540R. Topics in Plant Physiology. (3:3:0 ea.) On dem. Prerequisite: PAS 440 or equivalent; PAS 494R or concurrent enrollment.
Topics in advanced plant physiology.

546. World Bird Families. (3:4:2) W 2nd blk. Prerequisite: PAS 446 or instructor's consent.
Distribution, composition, and characteristics of world bird families, using museum specimens.

551. Quantitative Ecology. (2:2:1) W odd yr. Prerequisite: Biol 350 or equivalent; Stat 221 or 511 or concurrent enrollment.
Quantitative methods for ecological sampling and data analysis.

552. Terrestrial Ecosystems. (3:3:0) F even yr.
Theory and application of plant and animal distribution in terrestrial environments.

553. Restoration Ecology. (3:3:0) W odd yr. Prerequisite: PAS 282, 416, InBio 350; or equivalents.
Nature of ecosystem disturbance and plant succession; developing science and practice of ecological restoration; case studies of applied restoration.

554. Wildlife Behavioral Ecology. (3:3:0) W Prerequisite: Biol 100, 350; or equivalents.
Integrating principles of ethology, sociobiology, and behavioral ecology using examples from wildlife resources; behavioral sampling methods. Field trips required.

559. Plant Molecular Breeding. (2:2:0) W even yr. Prerequisite: PAS 265, 485, Biol 340; or equivalents; PAS 494R or concurrent enrollment.
Molecular genetic methods applied to improvement of economically important plants.

560. Soil and Plant Analysis. (3:2:4) W Prerequisite: PAS 282 or equivalent.
Laboratory chemical analysis of soils and plant materials in soil and plant research.

575. Plant Pathology. (3:2:3) F odd yr. Prerequisite: PAS 100 or InBio 131; PAS 331 or Biol 220 or 240; or equivalents.
Concepts associated with symptoms, development, control, and classification of plant diseases.

580. Plant Transformation. (2:1:3) W even yr. Prerequisite: Biol 360, PAS 486; or equivalents.
Theory and methods of plant transformation.

598R. Advanced Topics in the Plant and Animal Sciences. (1–3:Arr.:0 ea.) On dem.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Plant and Animal Sciences Faculty

Professors

Allen, Phil S. (1990) BS, MS, Brigham Young U., 1983, 1985; PhD, U. of Minnesota, 1990.
Anderson, Val Jo (1988) AS, Snow Coll., 1980; BS, MS, Utah State U., 1982, 1985; PhD, Texas A&M U., 1989.
Black, Hal L. (1975) BS, MS, U. of Utah, 1966, 1968; PhD, U. of New Mexico, 1972.
Booth, Gary M. (1972) BS, MS, Utah State U., 1963, 1966; PhD, U. of California, Riverside, 1969.
Christensen, Allen C. (2001) BS, Brigham Young U., 1957; MS, U. of California, Davis, 1960; PhD, Utah State U., 1979.
Crookston, R. Kent (1998) BS, Brigham Young U., 1968; PhD, U. of Minnesota, 1972.
Fairbanks, Daniel J. (1988) BS, Brigham Young U., 1982; MS, U. of Minnestoa, 1985; PhD, U. of Arizona, 1988.
Flinders, Jerran T. (1976) BS, MS, U. of Utah, 1967, 1968; PhD, Colorado State U., 1971.
Hess, Wilford M. (1962) BS, Brigham Young U., 1957; MS, PhD, Oregon State U., 1960, 1962.

Jolley, Von D. (1977) BS, Brigham Young U., 1970; MS, PhD, Iowa State U. of Science and Technology, 1974, 1976.
Kellems, Richard O. (1986) BS, Brigham Young U., 1969; MS, PhD, Oregon State U., 1975, 1976.
Roundy, Bruce A. (1994) BA, MS, U. of Nevada, Reno, 1973, 1977; PhD, Utah State U., 1984.
Terry, Richard E. (1980) BS, Brigham Young U., 1972; MS, PhD, Purdue U., 1974, 1976.
White, Clayton M. (1970) BA, PhD, U. of Utah, 1961, 1968.

Associate Professors
Coleman, Craig E. (1996) BS, MS, Brigham Young U., 1985, 1987; PhD, The Pennsylvania State U., 1992.
Hopkins, Bryan G. (2007) BS, MS, Brigham Young U., 1990, 1991; PhD, Kansas State U., 1995.
Jellen, Eric N. (1996) BS, Brigham Young U., 1986; MS, PhD, U. of Minnesota, 1988, 1992.
Maughan, Peter J. (2002) BS, MS, Brigham Young U., 1990, 1991; PhD, Virginia Polytechnic Inst. and State U., 1994.
Robinson, Todd F. (1996) BS, MS, Brigham Young U., 1986, 1988; PhD, Cornell U., 1996.
Smith, Tom S. (2006) BS, Brigham Young U., 1982; MS, U. of Alaska, 1987; PhD, Brigham Young U., 1992.
Stevens, Mikel R. (1994) BS, MS, Brigham Young U., 1977, 1983; PhD, U. of Arkansas, 1993.
Woolstenhulme, Loreen Allphin (1996) BS, MS, Brigham Young U., 1991, 1992; PhD, U. of Utah, 1996.

Assistant Professors
Geary, Bradley G. (2003) BS, Brigham Young U., 1995; MS, PhD, Washington State U., 1997, 1999.
Petersen, Steven L. (2006) BS, MS, Brigham Young U., 1994, 1997; PhD, Oregon State U. 2004.
St. Clair, Samuel B. (2007) BS, MS, Brigham Young U., 1998, 1999; PhD, Pennsylvania State U., 2004.
Udall, Joshua A. (2006) BS, Brigham Young U., 1995; MS, U. of Idaho, 1997; PhD, U. of Wisconsin, 2003.

Assistant Teaching Professor
Jolley, Greg V. (2003) BS, Brigham Young U., 1995; MLA, Kansas State U., 1999.

Senior Scientist
Webb, Bruce L. (1978) BS, MS, Brigham Young U., 1972, 1978.

Part-Time Faculty
Hunter, Norah T. (1983) BS, MS, Brigham Young U., 1982, 1992.

Adjunct Professors
Nelson, Williams

Collaborators and Adjunct Faculty
James Davis, Durant McArthur, Susan Meyer, Stephen Monsen, David Nelson, Jordan Pederson, Stewart Sanderson, Gary Strobel, Renee Van Buren

Emeriti
Andersen, William R. (1966) BS, MS, Utah State U., 1956, 1958; PhD U. of California, Davis, 1963.
Brotherson, Jack D. (1969) BS, MA, Brigham Young U., 1964, 1967; PhD, Iowa State U. of Science and Technology, 1969.
Ellsworth, D. Delos (1975) BS, Arizona State U., 1958; MS, Cornell U., 1959.
Gardner, Robert W. (1966) BS, Utah State U., 1958; MS, PhD, Cornell U., 1962, 1964.
Harper, Kimball T. (1973) BS, MS, Brigham Young U., 1958, 1960; PhD, U. of Wisconsin, Madison, 1963.
Hooper, Gary C. (1992) BS, Brigham Young U., 1963; PhD, U. of California, Riverside, 1968.
Horrocks, R. Dwain (1978) BS, Brigham Young U., 1962; MS, PhD, Pennsylvania State U., 1964, 1967.
Jeffery, Larry S. (1984) BS, Utah State U, 1962; PhD, North Dakota State U., 1966.
Moore, Glen (1954) BS, Brigham Young U., 1949; PhD, U. of Chicago, 1954.
Nelson, Sheldon D. (1972) BS, Brigham Young U., 1967; PhD, U. of California, Riverside, 1971.
Orme, Leon E. (1969) BS, Utah State U., 1953; MS, U. of Tennessee, Knoxville, 1955; PhD, Michigan State U., 1958.
Pace, Ronald T. (1961) BS, MS, Brigham Young U., 1955, 1958.
Park, Robert L. (1965) BS, Brigham Young U., 1956; MS, PhD, Cornell U., 1958, 1962.
Robison, Laren R. (1971) BS, MS, Brigham Young U., 1958, 1959; PhD, U. of Minnesota, Minneapolis, 1962.
Rushforth, Samuel R. (1970) BS, Weber State Coll., 1966; MS, PhD, Brigham Young U., 1968, 1970.
Shumway, R. Phil (1949) BS, Utah State U., 1947; MS, U. of Minnesota, Minneapolis, 1949; PhD, Utah State U., 1959.
Shupe, G. Merrill (1988) DVM, Washington State U., 1956.
Smith, Bruce N. (1974) BS, MS, U. of Utah, 1959, 1962; PhD, U. of Washington, 1964.
Smith, H. Duane (1969) BS, MS, Brigham Young U., 1963, 1966; PhD, U. of Illinois, 1969.
Stutz, Howard C. (1952) BS, MS, Brigham Young U., 1940, 1951; PhD, U. of California, Berkeley, 1956.
Tidwell, William D. (1966) BS, MS, Brigham Young U., 1954, 1963; PhD, Michigan State U., 1966.
Vallentine, John F. (1968) BS, Kansas State U., 1952; MS, Utah State U., 1953; PhD, Texas A&M U., 1959.
Wallentine, Max V. (1962) BS, Utah State U., 1955; MS, PhD, Cornell U., 1956, 1960.
Weber, Darrell (1969) BS, MS, U. of Idaho, 1958, 1959; PhD, U. of California, Davis, 1963.
Whitton, Leslie (1962) BS, Utah State U., 1949; MS, U. of California, Davis, 1953; PhD, Cornell U., 1964.
Williams, C. Frank (1971) BS, MS, Utah State U., 1967, 1968; PhD, Oregon State U., 1971.

Polish

See Germanic and Slavic Languages.

Political Science

Ray V. Christensen, Chair
745 SWKT, (801) 422-5133

College of Family, Home, and Social Sciences Advisement Center
151 SPWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Political Science are open enrollment.

The Discipline

The political science major is designed to fulfill the admonition of the Doctrine and Covenants (88:79–80) to teach one another "things which are at home, things which are abroad; the wars and the perplexities of the nations, and the judgments which are on the land; and a knowledge also of countries and of kingdoms that ye may be prepared in all things."

Politics extends far beyond the immediate concerns of politicians or pollsters; it is essential to the human condition. Since we are all shaped by the institutions we inhabit, political science helps us to understand not only our world but ourselves. It involves fundamental choices concerning our life in communities whether locally, nationally, or globally. Without politics there could be only chaos and conflict. With politics there is the chance for order and thus the opportunity to seek prosperity and fulfillment. Often conflictual but just as often cooperative, politics reflects our basic needs and interests, our highest aspirations, and the often harsh requirements of power.

Political science involves this full range of inquiry, including questions of "who gets what," questions of the best or most just political order, and questions of the nature, uses, and abuses of power. Political science students will be exposed to a broad range of perspectives or great ideas about politics to better understand questions such as "Why is campaign finance reform so difficult?" "Why did the Soviet Union fall?" "Were the Athenians justified in condemning Socrates to death?" and "Do democracies fight fewer wars?" Students will learn a variety of methods ranging from statistical analysis of quantifiable data to historical comparison of institutions to reflection on influential texts. Before graduating, students will not only better define their own values and ideas about politics but also develop their own significant research project as political scientists. Students will be prepared "in all things" to influence their communities for the better.

Career Opportunities

The Political Science Department offers an undergraduate degree in political science for students who are preparing for graduate study in related fields, professional degrees (law or business), or a wide variety of public service occupations, or for liberal arts students who are interested in an undergraduate major that focuses on challenging questions facing modern society.

Students may emphasize the subfields of American politics, comparative politics, international politics, political philosophy, or public policy.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Political Science
Minors	Political Science
	Political Science Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

General Information

All political science students should enrich their undergraduate education and enhance their career prospects with an off-campus internship experience. Several high-quality opportunities are available for which credit may be earned toward the major or minor.

Washington Seminar. Students from any academic discipline spend a semester or term in Washington, D.C., working in government, business, communications, or the arts. Complementing course work involving readings and briefings on contemporary national issues is part of the curriculum. From 6 to 12 hours of upper-division credit may be earned.

Utah State Legislature Internship. During each winter semester students from any academic discipline may work as interns in the Utah State Legislature. Students interested in legislative and public policy processes will particularly benefit from the experience. Complementing course work on state government can be taken in conjunction with the internship. From 6 to 12 hours of upper-division credit may be earned.

State and Local Government Internships. Throughout the year students may intern with city, county, or state governments, as well as the district offices of U.S. senators and representatives (availability of positions may vary). From 3 to 6 hours of upper-division credit may be earned.

International Internships. The International Internship Program at the David M. Kennedy Center places students in a variety of internships with foreign governments and international institutions.

Requirements

1. Internships should be completed during the junior or senior year. Prior to the internship students should have completed Pl Sc 110 and 200.
2. Students must have a cumulative grade point average of 2.7 or better (Washington Seminar requires a 3.0) and be in good academic standing. Strong research and writing skills are important qualifications.
3. All internship programs have a strong and complementing academic component to help students gain the most from their experience. Students completing any of the above internships must be enrolled for credit.

BA Political Science (50 hours*)

The Discipline

See general description of the discipline.

Career Opportunities

Career choices open to graduates in political science include careers in law, teaching, business, journalism, the media, and libraries, as well as with interest groups and associations. In addition, majors are also placed with federal, state, and local governments and are found in elective politics. A number of these options do require additional graduate training.

Major Requirements

1. At least 27 hours of political science courses must be taken in residency at BYU (BYU Independent Study courses do not meet this requirement).

2. Pl Sc 101, 102, and 297 do not count toward the major or minor.
3. Only 6 hours of 298R and 399R combined may count toward the major.
4. No cooperative education (internship) credit from other universities or colleges will be accepted toward the major.
5. Majors are strongly encouraged to take Phil 150 to complete the GE First-Year Writing requirement.
6. Pl Sc 200 is prerequisite to all upper-division courses and must be taken no later than the sophomore year.
7. Complete the following:
   Econ 110.
8. Complete two of the following foundation courses before higher-numbered courses (they do not need to be taken in order):
   Pl Sc 110, 150, 170.

   Note: Students who do not take one of these three foundation courses must take a corresponding upper-division elective course. If you do not take Pl Sc 110, you must take one course selected from Pl Sc 310–319R, 320, 321, 322, or 410. If you do not take Pl Sc 150, you must take one course selected from Pl Sc 341–349R, 350–359R, 444, or 450–458. If you do not take Pl Sc 170, you must take one course selected from Pl Sc 370–379R, 380–388, or 470–474.
9. Complete one of the following foundation courses before higher-numbered courses:
   Pl Sc 202.
   Phil 202.

   Note: If students do not take Pl Sc 201 or Phil 201, they must take an upper-division elective course selected from Pl Sc 300–309, 400–409, or 322, 334, 336, 364, 374, 473.
10. Complete the following methodology courses:
    Pl Sc 200, 328.

    Note: Pl Sc 200, along with a capstone seminar, fulfills the University Core Advanced Written and Oral Communication requirement. Pl Sc 328 fulfills the University Core Languages of Learning requirement (math option).
11. Complete one of the following theory courses during the junior year (note prerequisites in course descriptions):
    Pl Sc 300, 310, 330, 350, 370.
12. Complete 24 additional hours of political science electives, except 400, 410, 430, 450, 470. Only one 100-level course and one 200-level course may be counted.
13. Complete one of the following capstone seminars during the senior year. A completed capstone paper with at least a C– grade is required to receive a final grade in all capstone classes and fulfill the University Core Advanced Written and Oral Communication requirement (note prerequisites in course descriptions):
    Pl Sc 400, 410, 430, 450, 470.
14. All students are strongly encouraged to complete an internship with one of the department's programs, such as the Washington Seminar, Utah State Legislature, or local government. Up to 6 hours of credit earned from an internship (399R) may be counted toward the major.
15. Students who plan no formal education beyond the bachelor's degree should take a double major or develop adequate skills through other courses that will enhance their employment opportunities. Consult the college advisement center or department Web site.

    Students who plan to seek MA or PhD degrees are strongly encouraged to strengthen their quantitative and analytical skills. These students should consult with faculty about other skills that specific graduate programs might require.
16. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for Pl Sc 110 or Pl Sc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill university core requirements.

Minor Political Science (21 hours*)

Minor Requirements

1. Complete the following:
   Pl Sc 110, 150, 170.
2. Complete one course from the following:
   Pl Sc 202.
   Phil 202.
3. Complete three additional upper-division courses.
4. Pl Sc 101, 102, 297 cannot be counted toward the minor.
5. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for Pl Sc 110 or Pl Sc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill university core requirements.

Minor Political Science Teaching (21 hours*)

Minor Requirements

1. Complete the following:
   Pl Sc 110, 150, 170.
2. Complete one course from the following:
   Pl Sc 202.
   Phil 202.
3. Complete three additional upper-division courses.
4. Pl Sc 101, 102, 297 cannot be counted toward the minor.
5. Students scoring a 5 on the American Government and/or Comparative Government AP exams may substitute AP credit for Pl Sc 110 or Pl Sc 150, respectively. However, they are required to take at least one upper-division elective in each subfield in which they substitute AP credit for American Government and Politics or Comparative Government and Politics.

*Hours include courses that may fulfill university core requirements.

Political Science (Pl Sc)

Undergraduate Courses

101R. Current Events and Political Science. (1–2:Arr.:0 ea.) F, W
Introduction to political science: national and international current events; department faculty, career opportunities, academic expectations, and campus resources. Appropriate for nonmajors.

102. Review of U.S. Government for Washington Seminar Students. (1:1:0)
Review of the essentials of American national government for nonmajors participating in the Washington Seminar. May not count toward a political science major or minor.

110. American Government and Politics. (3:3:0) Honors also.
Origin and development of federal Constitution; national, state, and local governments and politics.

150. Comparative Government and Politics. (3:3:0) Honors also.
Patterns of European, Asian, Latin American, and other political systems.

170. Introduction to International Politics. (3:3:0)
Basic forces, practices, institutions, and foreign policies of major powers; problem areas in international politics.

200. Political Inquiry. (4:3:1)
Methodology of political science, including theory and techniques of qualitative and quantitative research design. Prerequisite to all upper-division courses.

201. Western Political Heritage 1. (3:3:0) Honors also.
Western civilization from Greek antiquity to Renaissance, primarily from perspective of political philosophy and scriptures; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

202. Western Political Heritage 2. (3:3:0) Honors also.
Western civilization from Renaissance to present, primarily from perspective of political philosophy; exploring fundamental questions in human experience; examining formative events in history; understanding value of important texts.

297. Internship Program Preparation. (1–2:Arr.:0) F, W, Sp, Su
Preparatory seminar for students who will be participating in departmental internship programs.

298R. Political Simulation. (1–3:Arr.:0 ea.)
Utah Intercollegiate Assembly or Model United Nations.

300. Contemporary Political Theory. (3:3:0) Prerequisite: Pl Sc 201, 202; or Phil 201, 202.
History of political science, including the moral and ethical dimensions of politics.

301. Philosophy of the Social Sciences. (3:3:0)
Comparative analysis of the philosophy of scientific and normative inquiry.

308. Theories of Human Freedom. (3:3:0)
Scope of human freedom at the metaphysical, individual, social, and political levels.

309R. Topics in Political Philosophy. (3:3:0 ea.)

310. Theories of American Politics. (3:3:0) Prerequisite: Pl Sc 110, 200.
Major theories and approaches used to explain American politics.

311. State and Local Government and Politics. (3:3:0)
Independent Study also. Prerequisite: Pl Sc 110.
Relation of state and national governments, forms of state governments and politics, types of municipal governments and their operation.

313. Interest Groups. (3:3:0) Prerequisite: Pl Sc 110.
Theories on formation and maintenance of interest groups; tactics of groups in legislative, executive, bureaucratic, and court settings; influence of groups on elections and public policy.

314. The United States Presidency. (3:3:0)
Presidential power in the United States, focusing on major roles of the American presidency.

315. Congress and the Legislative Process. (3:3:0) Prerequisite: Pl Sc 110.
Election process; structure, organization, and procedures of legislative bodies; relations with pressure groups, the president, and executive branch.

316. American Political Parties. (3:3:0)
Electoral and policy-making roles of American political parties today and their future in American politics.

317. Public Opinion and Voting Behavior. (3:3:0)
Relationship between attitudes, opinion, and voting behavior in American politics and institutions.

318. Campaigns and Elections. (3:3:0)
Analyzes electoral process in the United States, including history, significance in governance, campaign strategy, finance, media role, etc.

319R. Topics in American Government and Politics. (1–3:3:0 ea.)

320. American Politics Through Literature. (3:3:0)
American politics through the novel and other literary works. Developing political concepts and themes that come from significant political novels.

321. The Media in American Politics. (3:3:0)
News media's role in processes of American politics, including electoral process, legislative process, and public policy-making.

322. Early American Political Thought: 1620–1865. (3:3:0) On dem.
Core principles and seminal texts of American politics from Colonial times through the Lincoln administration.

323. Modern American Political Thought: 1865–Present. (3:3:0) On dem.
Core principles and seminal texts of American politics from Reconstruction to the present.

328. Quantitative Political Methodology. (4:3:1) F, W Prerequisite: Pl Sc 200.
Quantitative techniques in political research.

330. Theories of Public Policy. (3:3:0) Independent Study also. Prerequisite: Econ 110, Pl Sc 110, 200.
Major theories used in assessing public policies, including policy formation, interaction of politics and economics, institutions of policy making, and policy.

331. Public Policy Process. (3:3:0)
Needs and demands for public action on policy issues; organization of public support; processes and problems of decision making in public policy.

333. Politics of Bureaucracy. (3:3:0)
Theory and nature of bureaucracy; sources of power; political executives; staffs and agency personnel; conflicts with elected officials; public interest and bureaucratic control.

334. Public Ethics. (3:3:0)
Sources of values, areas of conflict with government policy, means of value accommodation.

336. Government and Religion. (3:3:0)
Christian-Hebraic concepts of state. American experience with church-state relations (First Amendment problems). Policy issues of concern to contemporary religions.

339R. Topics in Public Policy. (3:3:0 ea.)

341. Western European Politics. (3:3:0) Prerequisite: Pl Sc 150.
Politics and policy in western Europe. State-building, party systems, nationalism, and cooperation among advanced industrial countries in comparative, historical perspective. Social and Christian democracy; European Union.

344. Comparative Political Economy. (3:3:0) Prerequisite: Pl Sc 150.
Overview of political economy from a comparative perspective. Classic theorists (Smith, Marx, Schumpeter, etc.); classic questions (industrialization, national economic policy, property, globalization, law, and economics).

347. Russia/Former Soviet Politics. (3:3:0)
Comparative politics of Russia and Soviet successor states. Development of political systems from common Soviet heritage, emphasizing post-independence politics and institution-building.

348. Korea, Taiwan, and South East Asian Politics. (3:3:0)
Comparative analysis of political developments in key nations of East and Southeast Asia, including regional relationships.

349R. Topics in Politics. (1–3:3:0 ea.)

350. Theories of Comparative Politics. (3:3:0) Prerequisite: Pl Sc 150, 200.
Selected issues of comparative politics such as crisis and discontinuity; development; political infrastructure (e.g., political culture and social structure); political institutions.

351. British Government and Politics. (3:3:0)
Examination of the origin and contemporary operation of British political institutions as they relate to British society.

352. African Politics. (3:3:0)
Processes of change and development of nation states; African regionalism and relations with other nations; contemporary political issues.

353. China: Government and Politics. (3:3:0)
Structure and behavior of politics; contemporary problems.

354. Japan: Government and Politics. (3:3:0)
Structure and behavior of politics; contemporary problems.

355. Canadian Government and Politics. (3:3:0)
Growth and development of Canada and its government; Canada's role in the contemporary world.

357. Middle East: Political Systems. (3:3:0)
Social, philosophical, and religious impact on Middle East political institutions in an era of modernization and conflict.

358. Politics and Society in Latin America. (3:3:0) Prerequisite: Pl Sc 200 or Lt Am 211.
Conceptual and contemporary issues in Latin America's search for political order and economic development.

359R. Topics in Comparative Politics. (3:3:0 ea.)

360. Constitutional Law—American Federal System. (3:3:0)

361. Constitutional Law—Rights and Immunities. (3:3:0)

364. Jurisprudence. (3:3:0)
Problem approach to ancient and modern legal philosophies, emphasizing the nature of justice and the relation of law to morality.

369R. Topics in Law and Justice. (1–3:3:0 ea.)

370. Theory of International Relations. (3:3:0) Prerequisite: Pl Sc 170, 200.
Most influential traditions of thought in international relations; includes realism, idealism, Marxism, neorealism, complex interdependence, etc.

371. Foreign Policy Analysis. (3:3:0) Prerequisite: Pl Sc 200, 370.
Survey of research regarding multiple levels of foreign policy analysis: individual, group, bureaucratic, societal, economic, systemic.

372. International Political Economy. (3:3:0)
Political implications of international trade, investment, and monetary policies within an increasingly interdependent global context; transnationalism.

373. International Law. (3:3:0) Prerequisite: Pl Sc 170, 200.
Nature and function of international law; recognition, succession, jurisdiction rights, and immunities of states; nationality and jurisdiction over nations.

374. Ethics and International Affairs. (3:3:0) Prerequisite: Pl Sc 200.
Ethical considerations in study and practice of international politics. Realism, idealism, and other theories of state behavior subjected to ethical standards.

375. International Organizations. (3:3:0)
International institutions; transnational relations; rise of newer political organizations: League of Nations, United Nations, European communities, world religions, multinational corporations, terrorist groups, global regimes.

376. U.S. Foreign Policy. (3:3:0)
Formation, implementation, analysis, and criticism of themes in American foreign policy.

377. National Security Affairs. (3:3:0)
Foreign policy, defense strategy, and intelligence.

378. International Conflict. (3:3:0) Prerequisite: Pl Sc 150 or 170.
Causes of war; alliances and empires; military innovation; civil-military relations; fungibility of forces; terrorism; security studies methods; use and misuse of history.

379R. Topics in International Relations. (1–3:3:0 ea.)

380. International Relations of Latin America. (3:3:0) Prerequisite: Pl Sc 200 or Lt Am 211.
Factors that affect foreign relations of Latin American countries, including the U.S. role, emphasizing intervention, democracy, development, and trade.

381. International Relations of the Middle East. (3:3:0)
Interregional relations and conflicts, political economics, Arab nationalism, processes of political change, alliances, and superpower relations.

382. International Relations of North America. (3:3:0)
Examination and analysis of factors that affect foreign relations of Canada, U.S., and Mexico, emphasizing trade, security, migration, environment.

385. International Relations of Asia. (3:3:0)
Foreign policies and international relations of China, Japan, and Northeast and Southeast Asia; historical and contemporary review and analysis.

386. Japanese Foreign Policy. (3:3:0)
Process and outcomes of Japan's foreign policy; analysis of its relations with other nations in a historical and contemporary setting.

388. Chinese Foreign Policy. (3:3:0)
Structure and process of foreign policy of the People's Republic of China.

391. Advanced Seminar on Current Issues. (3:3:0) For students interning in Washington, D.C. Prerequisite: acceptance to Washington Seminar.
Briefings and lectures from government officials and agencies, as well as directed readings on current issues.

399R. Academic Internship. (1–9:0:0 ea.) Prerequisite: acceptance into program.
Work-study on the international, national, state, and local level.

400. Capstone Seminar in Political Theory. (3:3:0) For political science majors only. Prerequisite: Pl Sc 200, 201, 202, 300.
Seminar in political theory for students in their senior year.

402. Plato's Political Thought. (3:3:0)
Plato's dialogues that contain political teachings or implications.

405. Federalist Papers. (3:3:0)
The primary defense of the Constitution of the United States, which also constitutes the major commentary on that document.

406. Tocqueville on America. (3:3:0)
Alexis de Tocqueville's *Democracy in America*.

408. Hermeneutics, Deconstruction, and Politics. (3:3:0)
Critical political theory, including writers such as Hegel, Nietzsche, Heiddegger, Gadamer, Derrida, and Levinas.

410. Capstone Seminar in American Politics. (3:3:0) For political science majors only. Prerequisite: Pl Sc 110, 200.
Seminar in American politics and government for students in their senior year.

430. Capstone Seminar in Public Policy. (3:3:0) For political science and public policy majors only. Prerequisite: Pl Sc 110, 200.
Seminar in public policy for students in their senior year.

444. The Political Economy of Development. (3:3:0) Recommended: Econ 110, Pl Sc 200.
Political foundations of growth, providing public goods, and political reform in developing countries. Development and how institutions and culture shape it.

450. Capstone Seminar in Comparative Politics. (3:3:0) For political science majors only. Prerequisite: Pl Sc 150, 200.
Seminar in comparative politics and government for students in their senior year.

452. Islam and Politics. (3:3:0)
Tensions and accommodations between religion and politics in Muslim nations.

458. Totalitarianism. (3:3:0)
Totalitarian systems of government and philosophy in nineteenth and twentieth centuries.

470. Capstone Seminar in International Relations. (3:3:0) For political science majors only. Prerequisite: Pl Sc 170, 200.
Seminar in international relations and politics for students in their senior year.

471. Intelligence and National Security. (3:3:0) Prerequisite: Pl Sc 200.
Relationship between theory and practice of intelligence and national security of states.

472. International Political Economy of Women. (3:3:0) W Recommended: Pl Sc 200.
Effects upon national, international, and developmental policies when women are rendered visible and valued.

473. Human Rights. (3:3:0)
Causes of human rights violations and societal and state responses; nature, history, and impacts of international human rights norms; ways to define and promote rights.

474. Arab-Palestinian-Israeli Conflict. (3:3:0)
Emphasizes historical background, current situation, and alternatives leading to conflict resolution.

498R. Directed Individual Study. (1–3:3:0 ea.) Prerequisite: senior status and department chair's and instructor's consent.

499. Honors Thesis. (1–3:Arr.:0 ea.) On dem. Prerequisite: completion of lower-division political science major requirements.

500-Level Graduate Courses (available to advanced undergraduates)

519R. Advanced Topics in American Government. (3:3:0 ea.)

535. Natural Resources Policy. (3:3:0)
Processes and politics of public policies related to natural resources. Problems of analysis and evaluation.

536. Environmental Regulation. (3:3:0)
Regulatory programs aimed at air and water pollution, hazardous waste, toxic chemicals, and other environmental problems. Alternative regulatory mechanisms and approaches.

539R. Advanced Topics in Public Policy. (3:3:0 ea.)

545. Social Policy. (3:3:0)
Justifications for government intervention in families and individual lives, effectiveness of social policies.

549R. Advanced Topics in Politics. (3:3:0 ea.)

559R. Advanced Topics in Comparative Government. (3:3:0 ea.)

569R. Advanced Topics in Law and Justice. (3:3:0 ea.)

570. Advanced Theory of International Relations: Core Readings. (3:3:0)
Theory and research of international relations.

571. Foreign Policy Analysis. (3:3:0) Prerequisite: Pl Sc 200, 370.
Survey of research regarding multiple levels of foreign policy analysis: individual, group, bureaucratic, societal, economic, and systemic.

572. Continuity and Change in the International Political Economy. (3:3:0)
Dynamics of change in international political economy in post–Cold War period.

579R. Advanced Topics in International Relations. (3:3:0 ea.)

599R. Academic Internship. (1–9:0:0 ea.) Prerequisite: acceptance into program.
Internships for master's candidates.

Political Science Faculty

Professors

Bowen, Donna Lee (1978) BA, U. of Utah, 1968; MA, PhD, U. of Chicago, 1972, 1981.
Bryner, Gary (1982) BA, U. of Utah, 1975; MA, PhD, Cornell U., 1980, 1982.
Davis, Richard (1992) BA, MA, Brigham Young U., 1975, 1979; MA, PhD, Syracuse U., 1983, 1986.
Daynes, Byron W. (1990) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of Chicago, 1971.
Fry, Earl Howard (1980) BA, MA, Brigham Young U., 1971, 1972; PhD, U. of California, Los Angeles, 1976.
Gong, Gerritt (2001) BA, Brigham Young U., 1977; MPhil, DPhil, Oxford U., 1979, 1981.
Hancock, Ralph C. (1987) BA, Brigham Young U., 1977; MA, PhD, Harvard U., 1980, 1983.
Hudson, Valerie M. (1987) BA, Brigham Young U., 1978; MA, PhD, Ohio State U., 1983.
Magleby, David Blyth (1981) BA, U. of Utah, 1973; MA, PhD, U. of California, Berkeley, 1974, 1979.
Reynolds, Noel B. (1970) BA, Brigham Young U., 1967; MA, PhD, Harvard U., 1968, 1971.

Associate Professors

Bohn, David Earle (1975) BA, MA, Brigham Young U., 1967, 1969; PhD, Columbia U., 1974.
Christensen, Raymond V. (1996) BA, Brigham Young U., 1984; JD, MA, PhD, Harvard U., 1987, 1990, 1992.
Goodliffe, Jay (1997) SB, Massachusetts Inst. of Technology, 1992; MA, PhD, U. of Rochester, 1995, 1998.
Hawkins, Darren G. (1998) BA, U. of Utah, 1990; MA, PhD, U. of Wisconsin, 1991, 1996.
Hyer, Eric (1988) BA, Brigham Young U., 1979; MA, East Asian Inst. Cert., PhD, Columbia U., 1981, 1982, 1990.
Jacoby, Wade (2000) BA, Brigham Young U., 1987; PhD, Massachusetts Inst. of Technology, 1996.
Nielson, Daniel L. (1996) BA, Brigham Young U., 1988; PhD, U. of California, San Diego, 1997.
Patterson, Kelly D. (1993) BA, MA, Brigham Young U., 1982, 1984; PhD, Columbia U., 1989.
Stiles, Kendall (2003) BA, MA, Brigham Young U., 1982, 1983; PhD, Johns Hopkins U., 1987.
Wilson, Sven E. (1997) BA, Brigham Young U., 1989; MA, PhD, U. of Chicago, 1992, 1997.

Assistant Professors

Cooper, Scott (1999) BA, Brigham Young U., 1992; MA, PhD, Duke U., 1996, 1999.
Gilchrist, Brent (2004) BA, MA, PhD, Carleton U., Canada, 1993, 1996, 2002.
Hawkins, Kirk A. (2003) BA, MA, Brigham Young U., 1993, 1995; PhD, Duke U., 2003.
Holland, Matthew S. (2001) BA, Brigham Young U., 1991; MA, PhD, Duke U., 1998, 2001.
Karpowitz, Christopher (2006) BA, MA, Brigham Young U., 1994, 1996; MA, PhD, Princeton U., 2000, 2005.
Monson, Quin (2003) BA, MA, Brigham Young U., 1996; MA, PhD, Ohio State U. 1999, 2004.
Pope, Jeremy C. (2004) BA, Brigham Young U., 1997; MA, PhD, Stanford U., 2002, 2004.
Schulzke, C. Eric (2003) BA, Brigham Young U., 1993; MA, Boston Coll., 1995; PhD, U. of California, Berkeley, 2002.

Emeriti

Farnsworth, Lee W. (1964) BA, MA, U. of California, Berkeley, 1957, 1960; PhD, Claremont Graduate School, 1963.
Galbraith, David B. (1985) BA, MA, Brigham Young U., 1964, 1965; PhD, Hebrew U. of Jerusalem, 1984.
Hillam, Ray C. (1960) BS, U. of Utah, 1955; MA, George Washington U., 1958; PhD, American U., 1964.
Johnson, G. Wesley (1984) AB, Harvard U., 1957; MA, PhD, Columbia U., 1961, 1967.
Mabey, Melvin P. (1955) BS, MA, Brigham Young U., 1947, 1953; DPhil, Oxford U., England, 1955.
Midgley, Louis C. (1960) BS, MS, U. of Utah, 1954, 1957; PhD, Brown U., 1964.
Morrell, Edwin B. (1961) BA, Brigham Young U., 1956; MA, PhD, Harvard U., 1959, 1966.
Paxman, Monroe J. (1973) JD, U. of Utah, 1949.
Riggs, Robert E. (1975) BA, MA, U. of Arizona, 1952, 1953; PhD, U. of Illinois, 1955; LLB, U. of Arizona, 1963.
Slover, Robert H. (1964) BA, U. of Oklahoma, 1935; MA, PhD, Harvard U., 1948, 1950.
Sorensen, Alma Don (1970) BS, Utah State U., 1960; MA, PhD, U. of Illinois 1962, 1965.
Taylor, Stanley A. (1968) BS, Brigham Young U., 1959; MA, MALD, PhD, Fletcher School of Law and Diplomacy, 1961, 1962, 1968.
Thomson, Dennis L (1977) BA, U. of Idaho, 1960; MA, Arizona State U., 1961; PhD, U. of California, Santa Barbara, 1969.
Tullis, F. LaMond (1969) BA, MA, Brigham Young U., 1961, 1964; MPA, PhD, Harvard U., 1965, 1969.

Portuguese

See Spanish and Portuguese.

Psychology

Ramona Hopkins, Chair
1082 SWKT, (801) 422-1170

Psychology Undergraduate Advisement Office
1005 SWKT, (801) 422-5356

Karen Christensen
Coordinator of Student Programs
1097 SWKT, (801) 422-4560

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All undergraduate degree programs in the Department of Psychology are open enrollment.

The Discipline

Psychology is a traditional discipline in the liberal arts and sciences and is rooted in the Western intellectual tradition. Since its founding in the late nineteenth century, psychology has distinguished itself primarily as a science with a wide scope of interests. Many psychologists also provide treatment for a broad range of disorders, and others work to solve pressing social issues. The diverse world community of academic and professional psychologists is devoted to expanding our understanding of individual and collective behavior and applying that understanding toward improving the human condition.

The department joins students and faculty together to make a scientific and applied contribution to the discipline of psychology. Its faculty members and administrators are committed to an educational experience that excites learning and understanding in personal and collaborative settings. At the same time the department honors the restored gospel as vital for psychological theory, as a guide for professional conduct, and as a source of unique insight. Aware of the history of psychology and as active participants therein, faculty members hold students to high standards of individual and collective performance and understanding. Students are expected to respond to multiple styles of teaching and broad opportunities for engagement in research and application with serious and sustained interest and effort. In this way the department distinguishes itself as a community of scholarship, moral principle, and devotion to the elevation of humankind.

Career Opportunities

The psychology major is a gateway to professional employment and to advanced study in psychology. Psychologists engage in a variety of academic roles as teachers, researchers, and administrators and also provide counseling, clinical, and consulting services to individuals and organizations. Psychologists are employed by colleges and universities, public and private schools, clinics, and hospitals. They work in private practice and for corporations and government entities. The study of psychology has particular value for family life and for civic and cultural roles generally. The psychology major provides a well-informed perspective on human and organizational behavior in preparation for occupations in law enforcement, law, or business.

Most professional positions require a master's or doctoral degree, although a bachelor's degree may be sufficient to gain employment in mental health care, detention and probation services, auxiliary social work, personnel, or human resources. Further, the psychology major gives students a particularly strong background leading to graduate study in business, law, or medicine.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Psychology
Minors	Psychology
	Psychology Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Psychology
PhD	Psychology
PhD	Clinical Psychology

For more information, see the BYU 2007–2008 Graduate Catalog.

BS Psychology (52–53 hours*)

Major Requirements

1. At least 36 of the total major credits must be 300-level or above. (Students can enroll in 500-level courses on a space-available basis.)
2. At least 23 hours of psychology major credit must be received while in residency at BYU.
3. A maximum of 13 hours may be taken as Independent Study (only 8 of which may count as residence hours).
4. Complete the following prerequisite courses:
   Psych 101, 111, 210.

   Note: These courses must be completed prior to enrollment in the courses listed in item 6 below.
5. Complete the following prerequisite courses:
   Psych 301, 302, 304.

   Note: Psych 301 is prerequisite to both Psych 302 and 304. Psych 301 may be taken concurrently with 210. Psych 301, 302, and 304 are prerequisite to all other 300- and 400-level courses.
6. Complete the following:
   Engl 315.
7. Complete four courses in one of the following clusters, including the required course indicated. In addition, complete three of the courses listed in one or both of the other clusters:
   Cluster A—Developmental and Clinical Psychology:
   Complete the following required course:
   Psych 341.
   Complete three courses from the following:
   Psych 311, 320, 321, 322, 342, 343, 348.
   Cluster B—Social Psychology:
   Complete the following required course:
   Psych 350.
   Complete three courses from the following:
   Psych 306, 311, 330, 338, 341, 352, 353, 354, 356, 358, 359, 376.
   Cluster C—Behavior, Brain, and Cognition:
   Complete the following required course:
   Psych 381.
   Complete three courses from the following:
   Psych 311, 361, 365, 370, 375, 382.
8. Complete 3 hours from the following capstone seminars:
   Psych 410R, 420R, 430R.

   Note: To enroll in a capstone seminar students must have completed Psych 101, 111, 210, 301, 302, and 304 (or be concurrently enrolled in 302 or 304); one core course from Cluster A, B, or C; and three other 300-level psychology courses (or be concurrently enrolled in the third course).
9. Complete one course from the following:
   Engl 150.
   Honrs 150.
   Phil 150.

   Note: Waivers based on AP or other test scores do not apply to this requirement. One of the courses must be taken.
10. Complete one multicultural issues course from the following:
    Anthr 101.
    El Ed 351.
    MFHD 354.
    Soc 113.
11. Complete one gender issues course from the following:
    Pl Sc 472.
    Psych 306.
    Soc 367.
    WS 222.

    Note: If Psych 306 is selected to fill this requirement, it cannot also be used to fill the requirement listed in item 7 above (Cluster B).

*Hours include courses that may fulfill university core requirements.

Minor Psychology (19 hours*)

Minor Requirements

1. Complete the following:
   Psych 111; 301 or equivalent.
2. Complete 12 elective hours from remaining undergraduate and 500-level courses; 9 hours must be 300-level or above. No more than 6 hours of Independent Study credit may count toward the minor.

*Hours include courses that may fulfill university core requirements.

Minor Psychology Teaching (21 hours*)

Minor Requirements

1. Complete the following:
   Psych 111, 321, 361.
2. Complete 12 elective hours of psychology (Psych 240, 320, 350 are recommended).

Note: The psychology teaching minor is intended for students who are pursuing secondary education licensure through the David O. McKay School of Education.

*Hours include courses that may fulfill university core requirements.

Psychology (Psych)

Undergraduate Courses

*Designates courses containing content featured in the Graduate Record Examination (GRE) Subject Test.

101. Orientation to the Psychology Major. (1:1:0) F, W, Sp, Su
Required seminar for all students entering major. Overview of curriculum and major requirements, faculty research programs and specialities, campus resources, and career possibilities.

111. General Psychology. (3:3:0) Honors also.
Basic course in modern scientific psychology.

170. Understanding and Improving Your Memory. (1:0:0) Independent Study only.
Principles of human learning and memory; study skills and methods for improving memory.

***210. History of Psychology.** (3:3:0) F, W, Sp, Su
Overview of psychological thinking from ancient Greece to present. Emphasizes a critical stance toward assumptions and implications of major psychological theories.

212R. Special Topics in Psychology. (1–3:Arr.:Arr. ea.)
Small-group seminar focusing on a classic text or on readings related to a contemporary issue in theory and research.

220. Human Development: Life Span. (3:3:0)
Interaction of psychological, biological, and social influences on behavior and psychological development through the life span.

240. Personal and Social Adjustment. (3:3:0) Independent Study also.
Concepts of adjustment and application of psychological principles for coping with stress and interpersonal, emotional, and psychosexual difficulties.

270. Improving Mental Skills. (3:3:0)
Improving one or more of the following skills: remembering, studying, problem solving, or rapid reading.

300. Applying to Graduate School. (1:1:0)
Overview of graduate programs in psychology; preparing application materials, including the Graduate Record Examination (GRE).

***301. Psychological Statistics.** (4:4:0) Independent Study also. Prerequisite: Math 110 or equivalent.
Descriptive analysis and hypothesis testing applied to psychological research data.

***302. Psychological Research Design and Analysis.** (3:2.5:1) F, W, Sp, Su Prerequisite: Psych 301.
Basic principles of designing, conducting, and reporting psychological investigations.

304. Psychological Testing. (3:2.5:1) F, W, Sp, Su Prerequisite: Psych 301.
Construction and validation of standardized psychological tests.

306. Psychology of Gender. (3:3:0) Independent Study also.
Biological and social contributions to sex role development, sexual self-concept, and complementarity of sex roles.

311. Critical Issues in Psychology. (3:3:0) F, W, Sp, Su Prerequisite: Psych 111, 210.
Critical and comparative examination of underlying theoretical and philosophical issues relevant to contemporary social, personality, and cognitive psychology, neuroscience, and psychotherapy.

***320. Developmental Psychology: Childhood.** (3:3:0) Independent Study also. Prerequisite: Psych 111 or instructor's consent.
Physical, mental, emotional, and social development of the child.

***321. Developmental Psychology: Adolescence.** (3:3:0) Independent Study also.
Development and maturation during adolescence; research methodology.

***322. Developmental Psychology: Adulthood.** (3:3:0) Independent Study also.
Stability and change in psychological, physiological, and interpersonal processes through early, middle, and late adulthood.

330. Organizational Psychology. (3:3:0) Independent Study also.
Personal, interactional, and structural aspects of organizations; motivation, decision making, problem-solving communication, leadership, organizational structure, change. Students taking this class should not take Org B 321.

338. Sport Psychology. (3:3:0)
Application of psychological principles to sporting activities.

***341. Personality.** (3:3:0) Independent Study also.
Individual patterns of behavior, thought, and emotion; personality theories and their associated strategies of research, assessments, and personality change.

***342. Abnormal Psychology.** (3:3:2) Prerequisite: Psych 111 or instructor's consent.
Dynamics of maladjustment; major psychological disorders and therapeutic procedures. Fieldwork required.

343. Child Psychopathology. (3:3:0)
Mental disorders of childhood.

348. Clinical Psychology. (3:3:0)
Personality theories, psychopathology, diagnostic interviewing and testing, psychotherapy techniques; research methods. Not a practicum.

***350. (Psych-Soc) Introduction to Social Psychology.** (3:3:0) Independent Study also.
Conformity and obedience; socialization, norms, roles; attitudes, leadership, group processes.

352. (Psych-Soc) Applied Social Psychology. (3:3:0) Prerequisite: Psych-Soc 350.
Applying social psychological theory, research, and methods to such domains as law, business, education, the media, mental health, and physical health.

353. LDS Perspectives and Psychology. (3:3:0)
Relationships between theories of psychology and LDS thought.

354. Psychology of Religion. (3:3:0)
Classification of religious behavior and experience; source of religious motivation; religion and the growth process.

356. Introduction to Health Psychology. (3:3:0) F, W
Psychology focusing on the Biopsychosocial Model, i.e., health issues from standpoint of biological, psychological, and social factors.

358. Leadership Development. (3:2:2) Independent Study also.
Principles and practices of successful leadership: decision making, communications, planning, team building, motivation, and interpersonal skills.

359. Environmental Psychology. (3:3:0) Independent Study also. Prerequisite: Psych 111.
Interaction between people and their physical context.

***361. Principles of Learning.** (3:3:0) Prerequisite: Psych 302.
Principles of learning; representative experiments.

***365. Motivation.** (3:3:0)
Determinants of motivation, relationship of motives to emotion, thought, personality, and action. Implications for understanding self and others.

***370. Sensation and Perception.** (3:3:0) Prerequisite: Psych 302; or Neuro 105 for neuroscience majors.
Sensory basis of perception and principles of perceptual organization.

***375. Cognition.** (3:3:0) Prerequisite: Psych 302.
Perceptual organization; information processing; cognitive development; relationships between sensory analysis, perception, memory, learning, language, and problem solving.

376. Language Development. (3:3:0)
Principles of language acquisition including communicative development in infancy, sematic and syntactic development, language and literacy in the school years, and effects of brain damage.

***381. Behavioral Neurobiology.** (3:3:0) Prerequisite: Psych 302 or Neuro 205.
Basic physiological, anatomical, and chemical foundations of psychology.

***382. Stress Psychobiology.** (3:3:0) Prerequisite: Psych 302 or Neuro 205.
Behavioral neurobiology of stress.

386R. Behavioral Neurobiology Laboratory. (1–3:Arr.:Arr. ea.) Prerequisite: Psych 381, 382, or concurrent enrollment and instructor's consent.

387. Introduction to Primate Behavior. (3:3:0) W Prerequisite: introductory psychology.
Overview of primate behavior; the role of parental care on developmental outcome, functional neurobiology, and psychopathology.

390R. Special Topics in Psychology. (1–3:3:0 ea.) Prerequisite: instructor's consent.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: Psych 111 and department's consent.

410R. Senior Practicum: Teaching of Psychology. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience as an undergraduate teaching assistant or Psych Central tutor or in other teaching-related activities, including research.

420R. Senior Practicum: Community Projects. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience in community-based service learning related to practice of psychology. Structured record of student's experience required.

430R. Senior Practicum: Research in Psychology. (1–8:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.
Capstone experience in psychological research—laboratory-based, field-based, or otherwise. Students typically work with a research team.

492R. Supervised Instructional or Research Experience. (1–3:0:0 ea.) Prerequisite: instructor's invitation to register.
Course-related instructional activities or laboratory/field research.

495R. Independent Readings. (1–3:Arr.:Arr. ea.) Independent Study also. Prerequisite: instructor's consent.

499R. Independent Research. (1–3:0:0 ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

501. Data Analysis in Psychological Research 1. (4:3:1) Prerequisite: Psych 301 or Stat 222; or Stat 221, 223; or equivalents.
Using and interpreting major quantitative methods in psychology; some commonly used computer methods.

502. Data Analysis in Psychological Research 2. (4:3:1) Prerequisite: Psych 501 or instructor's consent.
Analysis of variance and experimental design; multiple regression; introduction to multivariate methods.

503. Research Measurement. (3:3:0)
Classical true score and item response theories; estimation procedures for instrument reliability and validity.

504. Research Design. (3:3:0)
Overview of designs used in psychotherapeutic literature, emphasizing critical analysis of empirical research.

505. Clinical Research. (3:3:0) Prerequisite: Psych 503, 504.
Overview of research examining processes and outcomes of psychological treatments for psychological disorders.

***510. History and Systems of Psychology.** (3:3:0)
Survey of origins and development of modern psychology, including consideration of the schools and theoretical systems.

511. Philosophy of Science for the Social Sciences. (3:3:0) Prerequisite: instructor's consent or admission to PhD program.
Issues in philosophy of science as they apply to social sciences, including methods, epistemology, and construction of knowledge.

512. Qualitative Research Methods. (3:3:0)
Theories and methods of qualitative research emphasizing philosophical assumptions, question formulation, data gathering, interpretation, and presentation of findings.

520. Advanced Developmental Psychology. (3:3:0)
Major research in developmental psychology, emphasizing theory, content, and methodology.

531. Organizational Psychology. (3:3:0)
Personal and interpersonal aspects of organizational life: goal setting, decision making, problem solving, communication, control, leadership, motivation, and change.

535. Behavior Modification Techniques. (3:2:2)
Practical application of behavior modification to academic discipline; emotional target behaviors of individuals and groups.

540. Personality Theory. (3:3:0) Prerequisite: Psych 341 and 5 additional hours in psychology.
Contemporary theories of personality developed within the framework of major psychological systems.

550. Theory and Research in Social Psychology. (3:3:0) Prerequisite: graduate standing or instructor's consent.
Current theories and research on how the thought, feelings, and behavior of individuals are influenced by the real or imagined presence of others.

552. Applied Social Psychology. (3:3:0) Prerequisite: Psych-Soc 350 or equivalent; graduate standing or instructor's consent.
Overview of domains in which social psychological theory and research have been applied in field settings.

555. Group Dynamics. (3:3:0) Prerequisite: Psych-Soc 350 or equivalent.
Theories and research on small-group processes and mass behavior.

560. Learning Theory. (3:3:0) Prerequisite: Psych 361 and 5 additional hours in psychology.
Critical review of current theories and persistent issues.

565. Motivational Psychology. (3:3:0) Prerequisite: Psych 365 or equivalent; graduate standing or instructor's consent.
Theoretical, historical, and empirical overview; recent trends and issues; role of animal studies; methodological issues.

575. Cognitive Processes. (3:3:0) Prerequisite: Psych 370, 375, or equivalent; graduate standing or instructor's consent.
Theory and research in perception, attention, language, problem solving, and other thinking processes.

583. Biological and Health Psychology. (3:3:0) Prerequisite: Psych 381, 382, or equivalent.
In-depth examination of biological bases of behavior from perspective of health and disease.

584. Cognitive Neuroscience. (3:3:0) Prerequisite: graduate standing or instructor's consent.
Critical analysis of neurobiological bases of perception and cognition.

585. Human Neuropsychology. (3:3:0) Prerequisite: Psych 381, 382, or instructor's consent.
Critical study of brain-behavior relationships.

586. Hormones and Behavior. (3:3:0) Prerequisite: Psych 381, 382, or equivalents.
Neural and endocrine mechanisms underlying behavior.

587. Sensory and Perceptual Processes. (3:3:0) Prerequisite: Psych 370, 381, 382; or instructor's consent.
Critical examination of sensory mechanisms and perceptual organization.

592R. Supervised Teaching Experience. (1–3:Arr.:Arr. ea.) For students receiving supervised teaching experience. F, W, Sp, Su

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Psychology Faculty

Professors
Ballif-Spanvill, Bonnie (1994) BS, PhD, Brigham Young U., 1962, 1966.
Barlow, Sally H. (1978) BA, MSW, PhD, U. of Utah, 1971, 1973, 1978.
Bigler, Erin D. (1990) BS, PhD, Brigham Young U., 1971, 1974.
Bloch, George J. (1989) BA, Brandeis U., 1962; MA, Claremont Graduate School, 1965; PhD, Stanford U., 1968.
Brown, Bruce L. (1968) BS, MS, Brigham Young U., 1965, 1968; PhD, McGill U., Canada, 1969.
Burlingame, Gary M. (1983) BS, Andrews U., 1978, MS, PhD, U. of Utah, 1981, 1983.
Higley, James Dee (2006) BS, Brigham Young U., 1980; MS, PhD, U. of Wisconsin, 1983, 1985.
Lambert, Michael J. (1971) BS, MS, PhD, U. of Utah, 1967, 1968, 1971.
Miller, Harold L., Jr. (1975) BS, Arizona State U., 1970; PhD, Harvard U., 1975.
Slife, Brent D. (1994) BA, William Jewell Coll., 1976; MS, PhD, Purdue U., 1977, 1981.
Wells, M. Gawain (1972) AS, Dixie Coll., 1964; BS, MS, Brigham Young U., 1967, 1968; PhD, Purdue U., 1972.
Williams, Richard N. (1981) BS, Brigham Young U., 1974; MS, PhD, Purdue U., 1978, 1981.

Associate Professors
Carpenter, Bruce N. (1996) BS, Brigham Young U., 1974; MS, PhD, U. of Wisconsin, Madison, 1977, 1980.
Flom, Ross A. (2001) BS, U. of Minnesota, 1992; MEd, Idaho State U., 1993; PhD, U. of Minnesota, 1999.
Gantt, Edwin E. (1998) BS, Brigham Young U., 1992; MS, PhD, Duquesne U., 1994, 1998.
Hedges, Dawson W. (2000) BS, Weber State Coll., 1984; MD, U. of Utah, 1998.
Hopkins, Ramona O. (1999) AS, Brigham Young U., 1975; BS, Westminster Coll., 1988; MS, PhD, U. of Utah, 1992, 1996.
Ridge, Robert D. (1992) BS, Brigham Young U., 1987; PhD, U. of Minnesota, 1992.
Spackman, Matthew P. (1998) BS, MS, Brigham Young U., 1994, 1996; PhD, Georgetown U., 1998.
Spangler, Diane L. (1997) BA, Pomona Coll., 1989; MS, PhD, U. of Oregon, 1991, 1994.
Steffensen, Scott C. (2001) BS, PhD, U. of Utah, 1980, 1987.

Associate Clinical Professor
Maughan, Michael L. (1972) BS, MS, EdD, Utah State U., 1966, 1968, 1970.

Assistant Professors
Allen, Mark D. (2000) BS, U. of Utah, 1993; MA, U. of Washington, 1995; PhD, Johns Hopkins U., 2002.
Baldwin, Scott A. (2006) BS, Brigham Young U., 2001; MS, PhD, U. of Memphis, 2002, 2006.
Clayton, Claudia J. (1991) BS, Brigham Young U., 1970; PhD, U. of Utah, 1976; PhD, Brigham Young U., 1991.
Holt-Lunstad, Julianne (2001) BS, MS, Brigham Young U., 1994, 1998; PhD, U. of Utah, 2001.
Steffen, Patrick R. (2000) BS, Brigham Young U., 1993; MS, PhD, U. of Miami, 1996, 1998.
Warren, Jared (2003) BS, Brigham Young U., 1996; MA, PhD, U. of Kansas, 1999, 2003.

Assistant Clinical Professor
Nielsen, Stevan L. (1988) BS, Brigham Young U., 1976; PhD, U. of Washington, 1984.

Executive Coordinator of Clinical Psychology
Norton, Elizabeth J. (1994) BS, PhD, Brigham Young U., 1972, 1978.

Emeriti
Bennion, Robert C. (1961) BA, Brigham Young U., 1956; MA, PhD, Ohio State U., 1959, 1961.
Bergin, Allen E. (1972) BS, MS, Brigham Young U., 1956, 1957; PhD, Stanford U., 1960.
Budge, Harold S. (1960) BS, MS, Utah State U., 1958, 1960; PhD, U. of Utah, 1981.
Bunker, Gary L. (1970) BA, MA, Brigham Young U., 1960, 1961; PhD, U. of California, Berkeley, 1966.
Cundick, Bert P. (1962) BA, MS, U. of Utah, 1957, 1959; PhD, Ohio State U., 1962.
Daniels, Philip B. (1961) BS, MS, Brigham Young U., 1954, 1957; PhD, Harvard U., 1962.
Fleming, Donovan E. (1971) BS, MS, Brigham Young U., 1956, 1957; PhD, Washington State U., 1962.
Hardy, Kenneth R. (1954) BA, MA, U. of Utah, 1948, 1949; PhD, U. of Michigan, 1954.
Higbee, Kenneth L. (1970) BS, MS, Brigham Young U., 1965, 1966; PhD, Purdue U., 1970.
Howell, Robert J. (1952) BA, MA, PhD, U. of Utah, 1948, 1949, 1951.
Jensen, Larry C. (1965) BS, MS, Brigham Young U., 1960, 1961; PhD, Michigan State U., 1966.
Payne, I. Reed (1964) BS, Brigham Young U., 1956; MS, PhD, Pennsylvania State U., 1958, 1963.
Pedersen, Darhl M. (1962) BS, MS, Brigham Young U., 1957, 1958; PhD, U. of Illinois, 1962.
Robinson, Burton W. (1955) BS, MS, Utah State U., 1951, 1951; PhD, Purdue U., 1954.
Robinson, Paul W. (1969) BS, MS, PhD, Utah State U., 1965, 1967, 1973.
Smith, Kay H. (1961) BA, MA, Brigham Young U., 1957, 1958; PhD, Wayne State U., 1962.
Stimpson, David V. (1964) BS, MS, Brigham Young U., 1959, 1960; PhD, U. of California, Berkeley, 1964.
Sullivan, Clyde E. (1981) BA, PhD, U. of California, Berkeley, 1948, 1958.
Weight, David G. (1969) BA, MS, Brigham Young U., 1963, 1965; PhD, U. of Washington, 1969.

Public Management

See Romney Institute of Public Management in the Marriott School of Management.

Quechua

See Center for Language Studies.

Quiche

See Center for Language Studies.

Rarotongan

See Center for Language Studies.

Recreation Management and Youth Leadership

Patti A. Freeman, Chair
273C RB, (801) 422-4369

College of Health and Human Performance Advisement Center
203 RB, (801) 422-3638

Admission to Degree Program

All degree programs in the Department of Recreation Management and Youth Leadership are open enrollment.

The Discipline

Students in the Department of Recreation Management and Youth Leadership may choose an undergraduate emphasis from the following areas: leisure services management, therapeutic recreation, or Scouting education. Though the three areas represent diverse and unique approaches, they share the commitment to a service-oriented profession.

Depending upon the particular emphasis, courses prepare students in the areas of leadership skills, systems management, budgeting and finance, program development, facilities management, and current issues in the field. Because of the nature of the profession, course work may not be limited to the Recreation Management and Youth Leadership Department. Course work in the related disciplines of business, behavioral sciences, health sciences, exercise sciences, family sciences, and life sciences may be required.

Career Opportunities

The curriculum will prepare students to provide professional services designed to meet the recreation, leisure, and youth leadership needs of communities, families, and individuals. Employment may be found in community (municipal/government) recreation agencies; private, commercial, industrial or military recreation programs; youth agencies and Scouting; clinical treatment settings (hospitals) or adaptive programs for people with disabilities; state and national parks; and/or educational settings.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Recreation Management and Youth Leadership
Emphases:
Leisure Services Management
Therapeutic Recreation
Minor Scouting Administration

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Youth and Family Recreation

For more information see the BYU 2007–2008 Graduate Catalog.

BS Recreation Management and Youth Leadership: Leisure Services Management Emphasis (54 hours*)

Major Requirements

1. Complete the following foundation requirements:
   P Mgt 321.
   RMYL 189, 301, 304, 307, 320, 485, 486, 487, 491.
2. Complete 2 hours from the following:
   RMYL 199R.
3. Complete 12 hours from the following:
   RMYL 496R.
4. Complete 12 additional hours from one of the following specializations:

   Community Recreation
   a. Complete the following:
      RMYL 412.
   b. Complete at least one business skills course from the following:
      Bus M 340.
      Org B 327.
   c. Complete at least one leisure management course from the following:
      RMYL 371, 405, 483, 493.
   d. Complete at least one programming course from the following:
      ExSc 276, 277.
      Hlth 320.
      RMYL 215, 216, 223R (only one 223R course will count for the program).

   Commercial Recreation
   a. Complete the following:
      RMYL 405.
   b. Complete 9 hours from the following:
      Acc 200.
      Bus M 300, 340, 371R, 372.
      Org B 327.
      RMYL 483.

   Outdoor Recreation
   Complete the following:
      RMYL 223R (2 sections), 426, 427.

   Youth Leadership
   a. Complete the following:
      RMYL 244, 306, 451.
   b. Complete 4 hours from the following:
      MFHD 333.
      Org B 347.
      RMYL 215, 223R, 351R, 371, 412, 483.

      Note: RMYL 223R must be a camping skills section.

      Note: Only one 223R or 351R course will count for the program.

*Hours include courses that may fulfill university core requirements.

BS Recreation Management and Youth Leadership: Therapeutic Recreation Emphasis (57 hours*)

General Information

1. Students are advised to take Stat 221 to fulfill their Languages of Learning general education requirement.
2. First aid and CPR certification must be obtained before completing the RMYL 496R internship experience.
3. Most agencies now require therapeutic recreation specialists to be certified through the National Council on Therapeutic

Recreation Certification (NCTRC). Students should consult the NCTRC candidate information at www.NCTRC.org to ensure eligibility to sit for the certification exam. To practice in the state of Utah, the law also requires a licensure exam.

4. Students will be required to complete two extensive advising sessions as they declare their major and as they begin their therapeutic recreation core courses.

Major Requirements

1. Complete the following foundation courses:
   P Mgt 321.
   RMYL 189, 304, 307, 320, 370, 471, 472, 473, 486, 487.
2. Complete 2 hours from the following:
   RMYL 199R.
3. Complete 12 hours from the following:
   RMYL 496R.
4. Complete the following:
   PDBio 205, 220.
   Psych 220, 342.

*Hours include courses that may fulfill university core requirements.

Minor Scouting Administration (18 hours)

Minor Requirements

1. Complete the following:
   RMYL 350, 451, 455, 457.
2. Complete 6 hours from the following:
   RMYL 496R.

Recreation Management and Youth Leadership (RMYL)

Undergraduate Courses

123. Introduction to Outdoor Recreation. (2:1:3)
Participation in a variety of outdoor activities.

189. Field Studies in Leisure Services and Therapeutic Recreation. (1:1:0)
Field trips to exemplary leisure service and therapeutic recreation agencies. Facility operations, design, management techniques and philosophy, marketing, and accessibility. Fee.

199R. Academic Internship: Practicum. (1–3:1:Arr. ea.)
Internship or cooperative education experience evaluated by supervisor and posted on student's transcript.

215. Social Recreation Leadership. (3:2:2)
Leadership skills for directing large social groups.

216. Crafts for Recreation. (2:1:3)
Administering and developing hobby craft skills for the recreation practitioner.

223R. Outdoor Skills Leadership. (2:2:4 ea.)
In-depth approach to leadership skills in selected outdoor specialty areas, including camping, hiking and survival, basic backpacking, winter camping, mountain biking, fly-fishing, sailing, river recreation, rock climbing, family outdoor recreation, and outdoor therapeutic recreation skills.

244. Introduction to Youth Leadership. (2:2:2)
Role of youth leadership within the American culture; career opportunities.

265. Scouting in the Church. (2:2:0) F, W, Sp
Scouting as a means to bring young men to Christ and accomplish the purposes of the Aaronic Priesthood.

301. Family Recreation. (3:3:0)
Exploring the role of family recreation in building successful families.

304. Leisure in Contemporary Society. (3:3:0)
Problems and opportunities resulting from the leisure era.

306. Youth Agency Administrative Functions. (3:3:0)
Organizational and operational practices of youth agencies on the administrative level.

307. Accessible Recreation. (3:3:0)
Making the recreation/leisure experience accessible to all people. Applications and implications of ADA in recreation/leisure settings.

320. Program Management. (3:2:1) Prerequisite: RMYL 199R, 304.
Organizing and administering community programs.

350. Boy Scouts of America Programs. (3:3:0) F
Boy Scouting, Varsity Scouting, and Venturing techniques in building codes of conduct, measurement of personal honor, and peer leadership ability.

351R. Venturing Outdoor Leadership. (2:2:2) F, W, Sp
Hands-on leadership experience and learning about group dynamics through outdoor experiences within a BSA Venturing Crew.

370. Introduction to Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 199R, 304, 307; PDBio 205 or 220.
Philosophy, agencies, professional organizations, services, programs, practices, and disability groups related to therapeutic recreation.

371. Facilitating Meetings and Conferences. (3:3:1)
Identifying roles of process facilitators as they plan and conduct meetings, activities, and conferences.

405. Commercial Recreation. (3:3:0) F For junior and senior students.
Entrepreneurial strategies; economic concepts applied to commercial recreation; steps of feasibility study and operations management.

412. Computer Applications for the Recreation Profession. (3:3:1) Prerequisite: for majors only.
Orienting the undergraduate student to computer applications in the field of recreation management and youth leadership.

421. Outdoor and Experiential Education. (3:3:0) F Prerequisite: instructor's consent.
Philosophy of outdoor and experiential education. Teaching methodologies and skills appropriate for outdoor education.

422. Organizing and Leading Outdoor Programs. (3:3:0) F Prerequisite: instructor's consent.
Preparing to organize and lead effective and safe outdoor and adventure programs through experiential learning opportunities.

423. Management of Outdoor Systems. (3:3:0) Prerequisite: instructor's consent.
Social, economic, political, and resource issues related to natural resource management. Policies of federal land managing agencies.

424. Wilderness First Responder. (3:1:6) F Prerequisite: instructor's consent.
Preparing to provide basic and advanced first aid in back country settings using classroom and field instruction.

426. Conservation and Outdoor Leadership Training (COLT) Preparation. (3:3:2) W
Outdoor recreation, management, leadership, and interpretation as it prepares students physically, intellectually, and socially to participate fully in the COLT program.

427. Conservation and Outdoor Leadership Training. (5:5:5) Su
Intensive, six-week experience developing outdoor skills, leadership, and management competencies. Fee.

451. Youth Agency Finance. (3:3:0) F, W
Financing youth agency programs, facilities, and services.

455. Boy Scouts of America Leadership. (3:3:0) W
Necessity and value of a personal code of ethics, personal management, and leadership in professional Scouting service.

457. Boy Scouts of America Administration. (3:3:0) F
Administrative practices used by nonprofit settings in which volunteers and professionals give leadership.

471. Assessment in Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 189, 304, 370; PDBio 205, 220; instructor's consent.
Patient assessment techniques and program plan development.

472. Program Dynamics in Therapeutic Recreation. (3:3:2) Prerequisite: RMYL 471.
Comprehensive, specific, and individual program design; assessment interviewing; documentation of patient progress and facilitation techniques; intervention strategies.

473. Issues in Administration of Therapeutic Recreation. (3:3:0) Prerequisite: RMYL 471.
Issues related to personnel/clinical supervision, standards of practice, ethical behavior, program evaluation, quality management, financing, organization, administration, leisure education, and credentialing in therapeutic recreation.

483. Public Facility Management. (2:2:0)
Understanding public facility management: stadium, arena, convention center, performing arts center, etc. Box office, security, staging, food service, utilities, housekeeping, crowd management, event coordination, promotion, contracts, television, lighting, sound, press relations, etc.

485. Management of Recreation Services. (3:3:0) Prerequisite: RMYL 199R, 304.
Personnel, financing, legal aspects, and city and departmental organization of recreation systems.

486. Legal Aspects and Risk Management of Leisure Services. (3:3:0) Prerequisite: RMYL 307, 485.
Legal and risk management issues in recreation/leisure settings.

487. Research and Evaluation. (3:3:0) Prerequisite: RMYL 320 or instructor's consent.
Academic and practical training to assess community recreational needs.

488R. Advanced Training. (1:1:0 ea.) F, W, Sp, Su
BSA training experiences such as Woodbadge, Camp School, JLT training, and Jamboree Leadership.

491. Recreation Facility Planning. (3:3:0) Prerequisite: instructor's consent.
Developing facilities for public and private recreation programs.

493. Park Planning and Development. (2:2:0)

496R. Academic Internship: Senior Project. (1–12:Arr.:Arr. ea.) Prerequisite: RMYL 199R, 481, and instructor's consent.
Full-time professional internship.

497R. Special Topics and Research. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Special topics and research in recreation management and youth leadership.

499R. Honors Thesis. (3:0:0 ea.) Prerequisite: departmental approval.
Thesis project representing independent work and reflecting highest standards of undergraduate achievement. Must receive both departmental and Honors Program approval.

500-Level Graduate Course (available to advanced undergraduates)

599R. Academic Internship. (1–8:1:40 ea.) Prerequisite: instructor's consent.
Professional leadership practicum.

Graduate Courses

For graduate courses, see the BYU 2007–2008 Graduate Catalog.

Recreation Management and Youth Leadership Faculty

Professors
Freeman, Patti A. (1999) BS, Brigham Young U., 1988; MS, Western Illinois U., 1989; PhD, Indiana U., 1993.
Gray, Howard R. (1979) BS, MA, Brigham Young U., 1969, 1970; PhD, Pennsylvania State U., 1977.
Hill, Brian J. (1999) BS, Brigham Young U., 1986; PhD, Clemson U., 1994.
Widmer, Mark A. (1995) BA, MA, Brigham Young U., 1988, 1990; PhD, U. of Utah, 1993.

Teaching Professor
Palmer, Gary K. (1968) BS, MRE, EdD, Brigham Young U., 1966, 1967, 1981.

Associate Professors
Nelson, Douglas C. (1976) BS, MRE, Brigham Young U., 1973, 1976; PhD, U. of New Mexico, 1995.
Zabriskie, Ramon (2000) BS, MA, Brigham Young U., 1989, 1993; PhD, Indiana U., 2000.

Associate Teaching Professor
Harris, Bradley D. (1980) BS, Brigham Young U., 1980.

Assistant Professors
Lundberg, Neil R. (2006) BS, MS, Brigham Young U., 1995, 1997; PhD, Indiana U., 2006.
Taniguchi, Stacy (2005) BA, U. of Alaska, 1975; MS, U. of Utah, 1981; PhD, Brigham Young U., 2004.
Ward, Peter J. (2006) BA, MBA, PhD, U. of Utah, 1997, 2003, 2007.

Instructor
Barney, Keith W. (2006) BS, Brigham Young U., 1984; MSW, Portland State U., 1988.

Emeriti
Catherall, Thomas S. (1971) BS, MA, EdD, Brigham Young U., 1965, 1975, 1980.
De Hoyos, Benjamin F. (1961) BS, MA, Brigham Young U., 1956, 1961; PhD, U. of Utah, 1969.
Hafen, William J. (1954) AS, Snow Coll., 1948; BS, Brigham Young U., 1950; MA, Washington State U., 1953; EdD, U. of Utah, 1968.
Hansen, John (1966) BS, MRE, Brigham Young U., 1964, 1966.
Heaton, Israel C. (1956) BS, MS, Utah State U., 1940, 1941; ReD, U. of Indiana, 1955.
Naylor, Jay H. (1959) BS, MS, Brigham Young U., 1958, 1959; EdD, U. of Utah, 1973.
Olsen, Burton K. (1965) BS, MS, Brigham Young U., 1963, 1964; PhD, U. of Minnesota, Minneapolis, 1970.
Skinner, Rulon Dean (1969) AA, Eastern Arizona Coll., 1950; BA, MA, Brigham Young U., 1954, 1971.
Thorstenson, Clark T. (1969) BS, MRE, Brigham Young U., 1962, 1965; PhD, U. of Utah, 1969.

Religious Education

Ancient Scripture

Dennis L. Largey, Chair
375A JSB, (801) 422-2067

David M. Whitchurch, Associate Chair
303D JSB, (801) 422-2796

Ancient Scripture (Rel A)

Undergraduate Courses

Asterisk (*) denotes core courses.

***121, 122. The Book of Mormon.** (2:2:0 ea.) F, W, Sp, Su Honors also.
Narrative, doctrines, and precepts of the Book of Mormon. Rel A 121 covers 1 Nephi through Alma 29. Rel A 122 covers Alma 30 through Moroni 10. *Returned missionaries must enroll in sections designated specifically for returned missionaries.*

***211, 212. The New Testament.** (2:2:0 ea.) F, W, Sp, Su Honors also.
Historical background, narrative, and doctrines of the New Testament. Rel A 211 covers the life and teachings of Jesus Christ set forth in the four Gospels. Rel A 212 covers the Acts of the Apostles through the Revelation of John.

301, 302. The Old Testament. (2:2:0 ea.) F, W, Sp, Su Honors also.
Historical background, narrative, and doctrines of the Old Testament. Rel A 301 covers Genesis through 2 Samuel. Rel A 302 covers 1 Kings through Malachi.

304. Writings of Isaiah. (2:2:0) F, W Honors also.
Teachings and prophecies of Isaiah in light of their historical context and relevance to latter-day people.

320. The Joseph Smith Translation of the Bible. (2:2:0) F, W
Historical significance of Joseph Smith's translation of the Bible, its relationship to the other standard works, and its doctrinal contributions.

327. The Pearl of Great Price. (2:2:0) F, W, Sp, Su Honors also.
Historical background and doctrines of the Pearl of Great Price.

392R. Special Studies in Religion: Ancient Scripture. (1–3:Arr.:0 ea.) On dem. Independent Study also.
Topical studies in religion based on student interest and teacher expertise.

Jerusalem Center Courses (Rel A)

The following courses are offered only at the BYU Jerusalem Center for Near Eastern Studies. Jerusalem Center courses may not be repeated.

101. Old Testament Survey. (2:1.5:3) Su
Survey of the Old Testament, integrated with extensive field study in the biblical world; leads to understanding, appreciation, and application of scriptural teachings today.

***111. New Testament Survey of the Gospels.** (2:1.5:3) Su
Survey of the New Testament Gospels integrated with extensive field experience in the biblical world; leads to understanding, appreciation, and application of scriptural teachings today.

***200. New Testament Studies.** (1–4:4:0) F, W
Integrated study of the New Testament and LDS history and prophecy in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

300. Old Testament Studies. (2:1.5:3) F, W, Su
Study of the Old Testament integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

303. Old Testament Studies. (3:3:4) F, W
Study of the Old Testament integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

***310. New Testament Studies of the Gospels.** (2:1.5:3) Su
Study of the New Testament Gospels integrated with extensive field experience in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

***311. New Testament Studies of the Gospels.** (3:2:4) F, W
Study of the New Testament Gospels integrated with extensive field experiences in the biblical world; leads to an understanding, appreciation, and application of scriptural teachings today.

Graduate Courses

For graduate courses, see the BYU 2007–2008 Graduate Catalog.

Ancient Scripture Faculty

Professors

Ball, Terry B. (1992) BS, MA, PhD, Brigham Young U., 1979, 1990, 1992.
Brown, S. Kent (1971) BA, U. of California, Berkeley, 1967; PhD, Brown U., 1972.
Draper, Richard D. (1988) BS, Brigham Young U., 1968; MA, Arizona State U., 1974; PhD, Brigham Young U., 1988.
Griggs, C. Wilfred (1972) BA, MA, Brigham Young U., 1966, 1968; PhD, U. of California, Berkeley, 1978.
Hoskisson, Paul Y. (1981) BA, MA, Brigham Young U., 1969, 1973; PhD, Brandeis U., 1986.
Huntington, Ray L. (1995) BS, MA, PhD, Brigham Young U., 1972, 1977, 1995.
Jackson, Kent P. (1980) BA, Brigham Young U., 1974; MA, PhD, U. of Michigan, 1976, 1980.
Johnson, Stanley A. (1994) BS, MS, EdD, Brigham Young U., 1975, 1979, 1987.
Judd, Daniel K (1993) BS, Southern Utah U., 1980; MS, PhD, Brigham Young U., 1985, 1987.
Largey, Dennis L. (1989) BA, Church Coll. of Hawaii, 1972; MA, EdD, Brigham Young U., 1976, 1981.
Ludlow, Victor L. (1972) BA, Brigham Young U., 1968; PhD, Brandeis U., 1979.
Merrill, Byron R. (1991) BA, Brigham Young U., 1972; JD, U. of California, Davis, 1975.
Millet, Robert L. (1983) BS, MS, Brigham Young U., 1971, 1973; PhD, Florida State U., 1983.
Ogden, D. Kelly (1984) BA, Weber State Coll., 1971; MEd, Brigham Young U., 1974; MA, Inst. of Holy Land Studies, 1978; PhD, U. of Utah, 1982.
Parker, Todd (1993) BS, Weber State U., 1974; MEd, EdD, Brigham Young U., 1978, 1985.
Parrish, Alan K. (1984) BS, MBA, Utah State U., 1968, 1972; EdD, U. of Southern California, 1981.
Pike, Dana M. (1993) BS, Brigham Young U., 1978; PhD, U. of Pennsylvania, 1990.
Robinson, Stephen E. (1986) BA, Brigham Young U., 1971; PhD, Duke U., 1978.
Seely, David Rolph (1987) BA, MA, Brigham Young U., 1981, 1982; AM, PhD, U. of Michigan, 1985, 1990.
Skinner, Andrew C. (1992) BS, U. of Colorado, 1975; MAR, Iliff School of Theology, 1978; MTh, Harvard U., 1980; PhD, U. of Denver, 1986.
Stohlton, John B. (1999) BS, Brigham Young U., 1960; JD, George Washington U., 1964.
Williams, Clyde J. (1991) BS, MEd, EdD, Brigham Young U., 1974, 1978, 1989.

Associate Professors

Fronk, Camille (1993) BA, Utah State U.; MA, PhD, Brigham Young U., 1986, 1996.
Hauglid, Brian M. (1999) BA, Brigham Young U., 1984; MA, PhD, U. of Utah, 1991, 1998.

Ludlow, Jared W. (2006) BA, Brigham Young U., 1992; MA, PhD, U. of California, Berkeley, 1994, 2000.
Marsh, W. Jeffrey (1998) BA, U. of Utah, 1981; MEd, PhD, Brigham Young U., 1983, 1989.
Rhodes, Michael D. (1999) BA, Brigham Young U., 1970; MS, U. of New Mexico, 1989.
Wayment, Thomas A. (2000) BA, U. of California, Riverside, 1994; MA, PhD, Claremont Graduate School, 1998, 2000.
Whitchurch, David M. (1998) BS, Utah State U., 1977; MEd, PhD, Brigham Young U., 1982, 1991.
Wilson, Keith J. (1995) BA, MA, Brigham Young U., 1976, 1981; PhD, U. of Utah, 1995.

Assistant Professors
Huntsman, Eric D. (1994) BA, Brigham Young U., 1990; MA, PhD, U. of Pennsylvania, 1992, 1997.
Judd, Frank F. (1999) BA, MA, Brigham Young U., 1993, 1995; MA, PhD, U. of North Carolina, 1997, 2003.
Muhlestein, Kerry M. (2006) BS, MA, Brigham Young U., 1994, 1997; PhD, U. of California, Los Angeles, 2003.
Sommerfeldt, Vern (1991) BA, MA, PhD, Brigham Young U., 1972, 1980, 1988.
Strathearn, Gaye (1999) BPhTy, U. of Queensland, Australia, 1983; BA, MA, Brigham Young U., 1991, 1992; PhD, Claremont Graduate School, 2004.
Swift, Charles L. (2003) BA, MA, PhD, Brigham Young U., 1983, 1987, 2003.
Szink, Terrence L. (1999) BA, Brigham Young U., 1983; MA, PhD, U. of California, Los Angeles, 1985, 2005.

Emeriti
Anderson, Richard L. (1955) BA, MA, Brigham Young U., 1951, 1957; JD, Harvard U., 1954; PhD, U. of California, Berkeley, 1962.
Benson, Reed Amussen (1978) BS, MA, EdD, Brigham Young U., 1953, 1975, 1981.
Harris, James R. (1966) BS, MA, EdD, Brigham Young U., 1952, 1958, 1965.
Horton, George A., Jr. (1983) BS, MS, Brigham Young U., 1953, 1957; EdD, U. of California, Los Angeles, 1969.
Matthews, Robert J. (1955) BS, MS, PhD, Brigham Young U., 1955, 1960, 1968.
McConkie, Joseph F. (1977) BS, MA, EdD, Brigham Young U., 1965, 1968, 1973.
Meservy, Keith H. (1958) BA, Brigham Young U., 1951; MA, Johns Hopkins U., 1966.
Nyman, Monte S. (1966) BS, MS, Utah State U., 1952, 1958; EdD, Brigham Young U., 1965.
Parsons, Robert Ernest (1964) BS, MS, Brigham Young U., 1954, 1957.
Patch, Robert C. (1949) BA, U. of New Mexico, 1945; MA, PhD, Brigham Young U., 1949, 1964.
Rasmussen, Ellis T. (1951) BS, MA, PhD, Brigham Young U., 1942, 1951, 1967.
Reeve, Rex C., Jr. (1981) BS, MS, EdD, Brigham Young U., 1961, 1962, 1974.
Tate, Charles D. (1960) BS, MS, Utah State U., 1954, 1958; PhD, U. of Colorado, 1966.
Taylor, Hal L. (1969) BS, MS, Brigham Young U., 1951, 1962.
Turner, Rodney (1956) BA, MA, Brigham Young U., 1949, 1953; EdD, U. of Southern California, 1960.

Church History and Doctrine

Arnold K. Garr, Chair
375B JSB, (801) 422-3691

John P. Livingstone, Associate Chair
303E JSB, (801) 422-3692

Church History and Doctrine (Rel C)

Undergraduate Courses

Asterisk (*) denotes core courses.

100. Introduction to the LDS Church. (2:2:0) F, W Only for students who are not LDS.

Doctrines, history, and practices of The Church of Jesus Christ of Latter-day Saints. It is strongly recommended that students who are not members of the Church take this course their first semester at BYU.

130. Missionary Preparation. (2:2:0) F, W, Sp, Su Honors also. This class may not be *taken* or *retaken* by returned missionaries.

Focuses upon the purpose, skills, and doctrines of missionary work and prepares prospective missionaries for a more meaningful MTC and mission experience. Recommended for all prospective missionaries.

234. LDS Marriage and Family. (2:2:0) F, W, Sp, Su Honors also.

LDS doctrines and principles of marriage and family.

261. Introduction to Family History (Genealogy). (2:2:0) F, W, Sp, Su Honors also.

Doctrinal significance, necessary skills, and available resources dealing with family history and genealogy.

293R. Specialized Studies in Family History (Genealogy). (1–2:Arr.:0 ea.) Prerequisite: Rel C 261.

Using documents from specific regional and organizational sources to identify ancestors and submit their names for temple ordinances.

***324, 325. The Doctrine and Covenants.** (2:2:0 ea.) F, W, Sp, Su Honors also.

Origin, content, and teachings of the Doctrine and Covenants. Rel C 324 covers Sections 1 through 76. Rel C 325 covers Sections 77 through Official Declaration 2.

333. The Living Prophets. (2:2:0) F, W, Sp, Su Honors also.

Doctrines, administration, backgrounds, and current teachings of the living prophets, seers, and revelators.

341. Latter-day Saint History, 1805 to 1844. (2:2:0) F, W, Sp, Su Honors also.

Church history and doctrine from the birth of Joseph Smith to his martyrdom.

342. Latter-day Saint History, 1845 to 1900. (2:2:0) F, W, Sp, Su Honors also.

Church history and doctrine from the martyrdom of Joseph Smith through the administration of Lorenzo Snow.

343. Latter-day Saint History, 1901 to the Present. (2:2:0) F, W, Sp, Su Honors also.

Church history and doctrine from the administration of Joseph F. Smith to the present.

344. Latter-day Saint History: The International Church. (2:2:0) F, W Honors also.

Church history and doctrine from 1830 to the present in Britain, Europe, the Pacific, Asia, Latin America, Africa, the Near East, and other areas.

350R. Religious Studies in a World Setting. (1–3:Arr.:0 ea.) On dem.

Religious studies related to Latter-day Saint foundations and doctrines as relevant to specific geographical regions (International Study Programs).

351. Survey of World Religions and the Restored Gospel. (3:3:0) F, W, Sp, Su Honors also.
Survey of non-Christian religions in light of the restored gospel.

352. Christian History and the Restored Gospel. (2:2:0) F, W, Sp, Su
History, doctrine, and practices of Christianity from its inception to the present in light of the restored gospel.

353. American Christianity and the Restored Gospel. (2:2:0) F, W, Sp, Su
History, doctrine, and practices of the major Christian faiths of America in light of the restored gospel.

355. Judaism and the Gospel. (1:2:0) F, W, Sp or Su Honors also.
History, doctrine, and practices of Judaism in light of the restored gospel.

356. Islam and the Gospel. (1:2:0) F, W, Sp or Su Honors also.
History, doctrine, and practices of Islam in light of the restored gospel.

370. Introduction to Teaching Seminary. (2:2:0) F, W
Philosophy, objectives, subject-matter areas, and related problems associated with religious education at the secondary level.

393R. Special Studies in Religion: Church History and Doctrine. (1–3:Arr.:0 ea.) F, W, Sp, Su Independent Study also.
Topical studies in religion based on student interest and teacher expertise.

431. Doctrines of the Gospel. (2:2:0) F, W, Sp, Su Honors also.
Doctrines of The Church of Jesus Christ of Latter-day Saints as taught in the scriptures and by latter-day prophets. Intended as a capstone experience to integrate doctrines and principles of the plan of salvation.

471. Methods of Teaching Seminary. (2:2:0) F, W Prerequisite: instructor's consent.
Prospective seminary teachers only.

472. Teaching the Developmentally Disabled. (2:2:0) Prerequisite: instructor's consent.
Training prospective Church Educational System teachers to effectively teach religious education to youth who are developmentally disabled.

475. Seminary Teaching Seminar. (1–2:2:0) Sp
Topics pertinent to success of newly appointed seminary teachers preparatory to fall teaching.

Graduate Courses

For graduate courses, see the BYU 2007–2008 Graduate Catalog.

Church History and Doctrine Faculty

Professors

Bennett, Richard E. (1997) BA, MA, Brigham Young U., 1972, 1975; PhD, Wayne State U., 1984.
Black, Susan Easton (1978) BA, Brigham Young U., 1966; MA, California State Coll., San Bernardino, 1975; EdD, Brigham Young U., 1978.
Brinley, Douglas E. (1990) BS, MS, Utah State U., 1964, 1966; PhD, Brigham Young U., 1975.
Cannon, Donald Q. (1973) BA, MA, U. of Utah, 1961, 1962; PhD, Clark U., 1967.
Choi, Dong Sull (1987) BA, Korea U.; MA, PhD, Brigham Young U., 1984, 1990.
Cowan, Richard O. (1961) BA, Occidental Coll., 1958; MA, PhD, Stanford U., 1959, 1961.
Garr, Arnold (1991) BA, Weber State Coll., 1969; MA, Utah State U., 1974; PhD, Brigham Young U., 1986.
Holzapfel, Richard Neitzel (1993) BS, Brigham Young U., 1980; MA, PhD, U. of California, Irvine, 1990, 1993.
Keller, Roger R. (1989) BMus, U. of Colorado, 1968; MDiv, Princeton Theological Seminary, 1971; PhD, Duke U., 1975.
Peterson, Paul H. (1984) BA, MA, PhD, Brigham Young U., 1966, 1972, 1981.
Sperry, Kip (1991) BS, MLS, Brigham Young U., 1970, 1974.
Top, Brent (1987) BA, MEd, PhD, Brigham Young U., 1976, 1980, 1984.
Woods, Fred E. (1998) BS, MA, Brigham Young U., 1981, 1985; PhD, U. of Utah, 1991.
Wright, Dennis A. (1995) BS, U. of Idaho, 1968; MEd, Brigham Young U., 1973; PhD, Arizona State U., 1978.

Teaching Professors

Bott, Randy L. (1993) BS, MEd, Utah State U., 1970, 1974; EdD, Brigham Young U., 1988.
Flake, Lawrence R. (1993) BS, MA, DRE, Brigham Young U., 1965, 1969, 1970.
Perkins, Jerome M. (1992) BA, MEd, PhD, Brigham Young U., 1971, 1977, 1989.

Associate Professors

Baugh, Alexander L. (1995) BS, Utah State U., 1981; MA, PhD, Brigham Young U., 1986, 1996.
Boone, David F. (1993) BA, MA, EdD, Brigham Young U., 1978, 1981, 1992.
Brooks, Kent R. (2001) BS, MEd, PhD, Brigham Young U., 1979, 1981, 1988.
Chadwick, Jeffrey R. (2001) BA, Weber State Coll., 1978; MA, Brigham Young U., 1984; PhD, U. of Utah, 1992.
Dorius, Guy L. (1994) BS, U. of Utah, 1984; MEd, PhD, Brigham Young U., 1986, 1994.
Doxey, Cynthia (1997) BA, MS, U. of Utah, 1985, 1988; MPhil, U. of Cambridge, England, 1991; PhD, Brigham Young U., 1994.
Freeman, Robert C. (1996) BS, Brigham Young U., 1985; JD, Western State U., 1989.
Harper, Steven C. (2002) BA, Brigham Young U., 1994; MA, Utah State U., 1996; PhD, Lehigh U., 2001.
Hedges, Andrew H. (1995) BS, Weber State U., 1986; MA, Brigham Young U., 1991; PhD, U. of Illinois, 1996.
Livingstone, John P. (1998) BSc, U. of Alberta, Canada, 1974; MEd, U. of Regina, Canada, 1981; EdD, Brigham Young U., 1986.
Manscill, Craig K. (1999) BA, Weber State Coll., 1978; MS, PhD, Brigham Young U., 1980, 1987.
Minert, Roger P. (2003) BA, Brigham Young U., 1977; MA, PhD, Ohio State U., 1987, 1991.
Newell, Lloyd D. (1999) BA, MA, PhD, Brigham Young U., 1980, 1985. 1999.
Ostler, Craig J. (1995) BA, MEd, PhD, Brigham Young U., 1977, 1979, 1995.
Richardson, Matthew O. (1996) BA, MEd, EdD, Brigham Young U., 1987, 1990, 1996.
Woodger, Mary Jane (1999) BS, Brigham Young U., 1980; MEd, Utah State U., 1992; EdD, Brigham Young U., 1997.

Assistant Professors

Esplin, Scott C. (2006) BS, Southern Utah U., 1997; MEd, PhD, Brigham Young U., 2001, 2006.
Fluhman, J. Spencer (2004) BA, Brigham Young U., 1998; MA, U. of Wisconsin, Madison, 2000.
Gaskill, Alonzo L. (2005) BA, Idaho State U., 1991; MA, Notre Dame, 1996; PhD, Trinity, Liverpool, 2000.
Nelson, Reid L. (2006) BA, MA, MBA, Brigham Young U., 1996, 2001, 2002; PhD, U. of North Carolina, 2006.

Emeriti

Andersen, Wilson Kay (1962) BS, U. of Utah, 1949; MEd, Brigham Young U., 1957.
Backman, Milton V., Jr. (1960) BS, MA, U. of Utah, 1954, 1955; PhD, U. of Pennsylvania, 1959.
Berrett, Lamar C. (1963) BS, U. of Utah, 1952; MS, EdD, Brigham Young U., 1960, 1963.
Bowen, Walter D. (1964) BS, MS, EdD, Brigham Young U., 1957, 1958, 1965.
Caldwell, C. Max (1978) BS, U. of Utah, 1958; MA, Brigham Young U., 1971.
Dahl, Larry E. (1978) BEd, U. of Alberta, Canada, 1961; MRE, EdD, Brigham Young U., 1968, 1971.
Durrant, George D. (1989) BA, MA, EdD, Brigham Young U., 1957, 1964, 1971.

Fugal, John P. (1966) BS, MS, DRE, Brigham Young U., 1948, 1959, 1967.
Garrard, Lamar E. (1967) BS, U. of Idaho, 1949; BS, MS, PhD, Brigham Young U., 1955, 1965, 1968.
Garrett, H. Dean (1985) BS, MS, Utah State U., 1967, 1969; EdD, Brigham Young U., 1974.
Hartshorn, Leon R. (1965) BS, MS, Brigham Young U., 1956, 1959; EdD, Stanford U., 1965.
Horsley, A. Burt (1956) BA, MA, Brigham Young U., 1945, 1954; PhD, West Welhelms U., Germany, 1956.
Jessee, Dean C. (1980) BA, MA, Brigham Young U., 1956, 1959.
Johnson, Clark V. (1979) BA, Utah State U., 1963; MA, PhD, Brigham Young U., 1969, 1977.
LeBaron, E. Dale (1986) BS, MA, EdD, Brigham Young U., 1963, 1965, 1976.
Otten, Leaun G. (1972) BS, MEd, Brigham Young U., 1959, 1965.
Pace, George W. (1970) BA, Brigham Young U., 1960; MA, Colorado State U., 1963; DRE, Brigham Young U., 1976.
Perkins, Keith W. (1975) BA, Arizona State U., 1959; MA, PhD, Brigham Young U., 1970, 1974.
Porter, Larry C. (1970) BS, Utah State U., 1957; MA, PhD, Brigham Young U., 1966, 1971.
Stevenson, J. Grant (1953) AS, Weber Coll., 1952; BA, MA, Brigham Young U., 1953, 1955.
Thorstenson, Clark T. (1969) BS, MRE, Brigham Young U., 1962, 1965; PhD, U. of Utah, 1969.

Retail Management

See Institute for Marketing Management and Research in the Marriott School of Management.

Romanian

See See French and Italian.

Russian

See Germanic and Slavic Languages.

Samoan

See Center for Language Studies.

Scandinavian Studies

See Department of Humanities, Classics, and Comparative Literature.

Secondary Education

See Teacher Education.

Serbian

See Center for Language Studies.

Serbo-Croatian

See See Germanic and Slavic Languages.

Slovene

See Center for Language Studies.

Slovenian

See Germanic and Language Languages.

School of Social Work

Kevin M. Marett, Director
2190A JFSB, (801) 422-3211

Kenneth W. Matheson, Associate Director and Undergraduate Coordinator
2177 JFSB, (801) 422-7447

Shirley E. Cox, Fieldwork Education Director
2179 JFSB, (801) 422-4320

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

School of Social Work Office
2190 JFSB, (801) 422-3282
Fax: (801) 422-0624
E-mail: socialwork@byu.edu
Web site: www.socialwork.byu.edu

Admission to Degree Program

The degree program in the School of Social Work carries special enrollment limitations. Please see the school, or visit the Web site at: www.socialwork.byu.edu.

The Discipline

The School of Social Work offers a curriculum that includes both core courses in social work and supportive courses in sociology, psychology, English, and biology that prepare students for generalist practice with individuals, groups, families, and communities. This course work prepares the graduate for professional licensure and for immediate employment in numerous human services and social work agencies.

Career Opportunities

Social workers graduating from the bachelor's program are prepared to enter the professional work place in a variety of human service settings, including public and private agencies, hospitals, clinics, schools, nursing homes, police departments, juvenile and adult correctional systems, and a wide range of other interesting arenas. Their clientele may be children, women, families, the elderly, or those mentally ill or developmentally disabled, delinquent or criminal, homeless, substance addicted, or troubled with other personal or social issues. The social work profession is particularly committed to helping those members of society who are vulnerable, oppressed, and living in poverty. Because the social work discipline focuses on the person in his or her environment, the variety of human problems encountered by social workers is very diverse. The program also prepares students for graduate study in social work or related professions.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Social Work

Students should see the program coordinator or school secretary for help or information concerning the undergraduate program.

Graduate Programs and Degrees

MSW Social Work

For more information see the BYU 2007–2008 Graduate Catalog. Please see the school or visit the Web site at www.socialwork.byu.edu for additional information.

BS Social Work (54–55 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the school office for information regarding requirements for admission to this major.

Accredited by the Council on Social Work Education.

Major Requirements

1. Students are accepted as majors only on formal application after completing the published prerequisites (see item 4 below). Deadlines for submitting applications are March 1 and November 1. Several factors are considered for acceptance because available slots are limited.
2. Students will not be allowed to enroll in Soc W 322, 330, 331, 360, 361, 462 unless officially admitted to the program. After formal acceptance as a major, the course sequence is then outlined for the entire program. Without clearance from the fieldwork educational director, students cannot register for the required field experience (Soc W 496R).
3. A minimum of 480 hours of social service agency experience is necessary for graduation, with 5 credit hours being issued for each 240 hours of field experience along with a weekly integrating seminar (Soc W 496R). Students must remain in the practicum a minimum of two consecutive semesters.
4. Complete the following (prerequisite to applying to the major):
   Soc 112.
   Soc W 200.

   Note: At least a B– grade in each prerequisite course is required for application to the program.
5. After acceptance into the program, complete the following:
   Soc W 322, 330, 331, 360, 361, 401, 402, 423, 462.
6. Complete 5–6 hours from the following:
   Soc W 390R, 475, 483, 484, 570, 580, 581, 585, 595R.

   Note: Other electives with prior approval of BSW coordinator.
7. Complete 10 hours of the following:
   Soc W 496R.
8. Complete the following courses:
   PDBio 205.
   Psych 342.

Recommended Courses

Preparatory courses to be taken during the freshman and sophomore years:
Anthr 101.
Econ 110.
Psych 111.
Soc 111.

*Hours include courses that may fulfill university core requirements.

School of Social Work (Soc W)

Undergraduate Courses

200. Introduction to Social Work. (3:3:0) F, W, Sp
Social welfare as a social institution; social work as a profession.

320. Human Behavior in the Social Environment 1: Conception/Adolescence. (2:2:0) F, Sp Prerequisite: major status.
Human growth and development from conception through adolescence; biological, psychological, and sociological influences; normal development tasks; application of diverse theories to client situations.

321. Human Behavior in the Social Environment 2: Young Adults/End of Life. (2:2:0) W, Sp Prerequisite: major status; Soc W 320 or concurrent enrollment.
Human growth and development from young adulthood through end of life; biological, psychological, and sociological influences; normal development tasks; application of diverse theories to client situations.

322. Human Behavior in the Social Environment. (3:3:0) Prerequisite: major status.
Human growth and development from conception through end of life; biological, psychological, and sociological influences; normal development tasks; application of diverse theories to client situations.

330. Social Welfare Programs and Services. (3:3:0) F, W Prerequisite: major status.
The Social Security Act, federal block grants, federal transfer programs, and the private social welfare sector.

331. Social Welfare Policy. (3:3:0) F, W, Sp Prerequisite: major status.
Social legislation processes; analysis of social policy and the knowledge available to social workers for involvement in social planning and policy change.

360. Social Work Practice with Individuals. (3:3:0) F, W, Sp Prerequisite: major status; PDBio 205 or concurrent enrollment.
Methods of social work practice within a generalist framework; interventions with individuals.

361. Social Work Practice with Groups. (3:3:0) F, W, Sp Prerequisite: major status; Soc W 360, Psych 342.
Generalist social work practice; small group process as an agent for change and growth; task groups, therapy groups, and families as targets for change.

390R. Special Topics in Social Work. (3:3:0 ea.) F, W, Sp, Su Prerequisite: Soc W 360 or instructor's consent.
Course content varies from year to year.

400. Introduction to Social Work Research Methods and Statistics. (5:5:0) F, W
Qualitative and quantitative designs. Problem formulation, data collection, statistical analysis, writing, and presenting results.

401. Introduction to Social Work Research Methods and Statistics. (3:3:0) F, W Prerequisite: concurrent enrollment in Soc W 402.
Basic principles of qualitative and quantitative research methods used in designing, writing, conducting, and reporting a social work investigation in an agency.

402. Applied Social Work Statistics. (3:3:0) F, W Prerequisite: concurrent enrollment in Soc W 401.
Analyzing data and interpreting results of introductory descriptive and inferential statistics. Graphing, central tendency variation, hypothesis testing, parameter estimation, measures of association, correlation, and regression.

423. Perspectives on Cultural Diversity. (3:3:0) F, W, Sp
Specific factors affecting social work intervention with clients of minority status, i.e., ethnicity, culture, race, lifestyle, etc.

462. Social Work Practice with Community Organizations. (3:3:0) F, W, Su Prerequisite: major status; Soc W 360, 361, and concurrent enrollment in Soc W 496R.
Generalist social work practice; macrolevel practice at organizational and community levels.

475. Substance Abuse. (2:2:0)
Historical/Social overview of substance use in America and its associated problems; overview of each major drug type. Specific issues associated with use and its effects on minorities, women, and children.

483. Child Welfare Services 1, 2. (3:3:0) F Prerequisite: Soc W 360 or instructor's consent.
Part 1: Family preservation/protection of abused, neglected, and sexually abused children. Part 2: Case planning to promote family preservation and permanence for children.

484. Child Welfare Services 3, 4. (3:3:0 ea.) W Prerequisite: Soc W 360 or instructor's consent.
Part 3: Developmental consequences of child abuse/neglect; framework for early recognition of developmental problems; importance of including developmental and remedial services in child welfare case plans. Part 4: Knowledge/Skills relating to child placement, risk assessment, attachment, separation and placement services, family intervention, working with foster care givers, and reunification services.

496R. Academic Internship: Senior Field Experience in Social Work. (1–10:1:0 ea.) F, W, Sp, Su Prerequisite: major status; Soc W 360, 361, PDBio 205, and concurrent enrollment in Soc W 462.
Practical experience in social service agencies; relationship between theoretical concepts and practice.

500-Level Graduate Courses (available to advanced undergraduates)

570. Crisis Intervention. (3:3:0) F, W, Sp
Assessment and intervention in crisis situations with clients.

580. Social Work in the School Setting. (3:3:0) W
Overview of knowledge and skills essential to the practice of social work in educational settings; emphasizes practical interventions when working with student/family/teacher/community resources.

581. Social Services for the Aging. (2:2:0) F, W, Sp
Process and impact of social service delivery systems on the aged. Utah state certificate available.

585. Global Issues of Children at Risk. (3:3:0) F
Analyzing major challenges facing children and their families globally, including poverty, malnutrition, poor health care, gender-based discrimination, child labor and sexual exploitation, AIDS orphans, child soldiers, and refugees.

595R. Directed Readings. (1–3:0:0 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Social Work Faculty

Professors

Cox, Shirley E. (1995) BA, Brigham Young U., 1962; MSW, Howard U., 1967; DSW, U. of Utah, 1986.

Matheson, Kenneth W. (1995) BS, Brigham Young U., 1967; MSW, DSW, U. of Utah, 1970, 1976.

Pehrson, Kyle Lynn (1990) BS, Weber State Coll., 1969; MSW, U. of Utah, 1971; PhD, Catholic U. of America, 1980.

Seipel, Michael M. O (1982) BS, MSW, U. of Utah, 1974, 1976; PhD, Cornell U., 1982.

Walton, Elaine (1995) BS, MSW, Brigham Young U., 1966, 1986; PhD, U. of Utah, 1991.

Associate Professors

Limb, Gordon E. (2005) BS, Brigham Young U., 1994; MSW, U. of Utah, 1997; PhD, U. of California, Berkeley, 2000.

Marett, Kevin M. (1992) BS, Brigham Young U., 1982; MSW, U. of Utah, 1985; PhD, Purdue U., 1989.

Norman, Judith L. (1990) BS, Brigham Young U., 1970; BS, Portland State U., 1972; MSW, DSW, U. of Utah, 1978, 1990.

Panos, Patrick T. (1999) BS, U. of Utah, 1985; MS, MSW, PhD, Brigham Young U., 1987, 1993.

Roby, Jini L. (1998) BS, MSW, JD, Brigham Young U., 1977, 1984, 1990.

Spaid, Wanda M. (1988) BA, Bethel College, 1969; MSW, U. of Minnesota, 1971; DSW, U. of Utah, 1988.

Special Instructors

Michael Cheney, Tamara Fackrell, Greg Hudnall, Pam Johstoneaux, J. P. Lilly, Marty Matheson, Wes Matheson, Bert Peterson, Allen Proctor, Wendy Sheffield, Gwen Squires, Jay Steineckert.

Emeriti

Blake, Reed H. (1967) BS, MS, Brigham Young U., 1957, 1959; PhD, Utah State U., 1969.

De Hoyos, Genevieve (1975) BA, Brigham Young U., 1954; MSW, Michigan State U., 1958; PhD, Indiana U., Bloomington, 1967.

Gibbons, W. Eugene (1969) BS, MSW, DSW, U. of Utah, 1960, 1963, 1974.

Horton, Anne L. (1990) BS, Ohio State U., 1977; MSW, George Williams Coll., 1977; PhD, U. of Wisconsin, 1983.

Pearson, Dale F. (1970) BS, MSW, U. of Utah, 1957, 1959; PhD, Brigham Young U., 1981.

Shumway, E. Gene (1975) BS, Brigham Young U., 1951; MSW, U. of Utah, 1953; DSW, Case Western Reserve U., 1969.

Wheeler, Barbara R. (1979) BS, MSW, DSW, U. of Utah, 1970, 1972, 1978.

Sociology

Renata T. Forste, Chair
2008C JFSB, (801) 422-4453

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the Department of Sociology are open enrollment. However, special limitations apply for teaching majors.

The Discipline

Sociology is the study of social relations, for example, the study of social interaction and the relations of power in modern society, family and community life, organizations, and institutions. Among other things, sociologists study social change and social movements, diversity, and the origins of inequality and social conflict. The study of sociology includes learning about the theoretical perspectives and the diverse research methodologies that inform sociological analysis.

Career Opportunities

Students major in sociology in preparation for a number of different careers. Individuals are trained to analyze available information, summarize findings, draw conclusions, and solve problems. The study of sociology prepares a student for professional training in law, social work, public policy, and public or business administration. Sociology also provides training for occupations that do not require graduate training: commercial and retail sales, real estate, financial planning, information management and analysis, and market research. Students interested in working for nonprofit organizations and for government agencies should consider majoring in sociology. Students interested in studying criminology or a career in law enforcement may also consider sociology as a major.

Becoming a sociologist requires further graduate study, either a PhD or a master's degree.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Sociology
Minor	Sociology (General)

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Sociology
PhD	Sociology

For more information see the BYU 2007–2008 Graduate Catalog.

BS Sociology (48 hours*)

Major Requirements

1. At least 9 hours of sociology major courses must be taken in residence at BYU.
2. Complete one of the following introductory courses:
   Soc 111, 112.
3. Complete the following introductory methodology courses:
   Soc 300, 307.
4. Complete one course from the following:
   Soc 306.
   Stat 221.
5. Complete the following theory courses:
   Soc 310, 311.
6. Complete the following writing course:
   Engl 312.
7. Complete at least one course from the following social diversity and inequality courses:
   Soc 322, 323, 367.
8. Complete the following:
   Soc 350.
9. Complete four additional courses from the following. Courses taken to fulfill other major requirements may not be used to meet this requirement. Courses may be selected from the following:
   a. Substantive courses:
      Soc 318, 322, 323, 325, 326, 327, 328, 329, 330, 335, 345, 360, 365, 367, 370, 380, 383, 389, 390R.
   b. Advanced methodological courses:
      Soc 404, 405, 406, 408.
   c. Senior-level sociology courses:
      Soc 420, 421, 422, 424, 425, 426, 429, 450, 460, 470, 481, 490R.
   d. Students are strongly encouraged to participate in a semester-long (3 credit hours) professional or research internship (Soc 399R) or a directed research project with a faculty member (Soc 497R). No more than 3 hours of Soc 399R and no more than 3 hours of Soc 497R may be used to meet this requirement.
10. Complete at least one course in advanced methodology:
    Soc 404, 405.

    Note: Students may wish to take both Soc 404 and 405. In such cases the second advanced methodology course may count toward the four-course requirements listed above (see item 9).
11. Complete two courses from the following:
    Soc 420, 421, 422, 424, 425, 426, 429, 450, 460, 470, 481, 490R.

*Hours include courses that may fulfill university core requirements.

Minor Sociology (General) (15 hours*)

Minor Requirements

1. Complete the following:
   Soc 111.
2. Complete 12 hours from any sociology courses not already completed.

*Hours include courses that may fulfill university core requirements.

Sociology (Soc)

Undergraduate Courses

111. Introductory Sociology. (3:3:0) Honors also.
Social group influence; social interaction, processes, organization, and change; family, religion, government, population, culture, race relations.

112. Current Social Problems. (3:3:0) Honors also.
Individual deviance (violence, insanity, drugs, sex, crime, etc.) and social disorganization (poverty, race and sex discrimination, divorce, overpopulation, etc.). Conditions, causes, solutions.

113. Multicultural America. (3:3:0)
Diverse cultural heritages in the United States. Cultures studied scientifically will include African American, Hispanic, Asian American, and Native American.

222. (Soc–WS) Introduction to Women's Studies. (3:3:0)
Survey of scholarship about women's lives; new historical, sociological, psychological, and literary approaches that inform our understanding of women's experience.

300. Methods of Research in Sociology. (3:3:0) Prerequisite: Soc 111 or equivalent or instructor's consent.
Tools of social research; survey, experimentation, content analysis, secondary analysis, qualitative research, evaluation research, data processing and analysis, and report writing.

306. Applied Social Statistics. (3:3:0) Independent Study also.
Introductory descriptive and inferential statistics; graphing, central tendency, variation, hypothesis testing and parameter estimation, measures of association, correlation, and regression.

307. Data Analysis, Presentation, and Management. (3:3:0) F, W, Sp Prerequisite: Soc 111 or 112; 300; Soc 306 or Stat 221; major status.
Framing research questions, locating available data, using programs and statistical packages for univariate and bivariate analysis, presenting and summarizing findings.

310. Foundations of Social Inquiry. (3:3:0) F, W, Sp Prerequisite: Soc 111.
Basic ideas and arguments forming sociological inquiry, including philosophical foundations, philosophy of social science, and development of classical theory.

311. Contemporary Sociological Theory. (3:3:0) F, W, Sp Prerequisite: Soc 111, 310.
Ideas, critiques, and arguments that form contemporary sociological inquiry.

318. (Soc-MFHD 333) Adolescent Development in the Family and Other Social Contexts. (3:3:0)
Examining developmental and social contexts of adolescents, emphasizing the importance of the family. Other contexts include peers, religion, community, schools, and cross-cultural issues.

322. Class Inequality. (3:3:0) F, W, Sp
Causes and consequences of class, status, and power differences.

323. Racial and Minority-Group Relations. (3:3:0) Prerequisite: Soc 111.
Social psychological and social structural analysis of racial and ethnic relations; prejudice, discrimination, responses, protests, current issues.

325. Introduction to the Sociology of Religion. (3:3:0) Prerequisite: Soc 111.
Origin, growth, and organizational development of religious groups; church activity, conversion, secularization, religious change.

326. Sociology of Education. (3:3:0)
Social origins of goals and curricula; theories of change and control; the nature of achievement in education.

327. Sociology of the LDS Church and Its People. (3:3:0)
The LDS Church from a social science perspective, including the Church as a new religious movement; LDS culture; the institutionalization process.

328. Sociology of Sport. (3:3:0)
Analysis of the sociological aspects of sport and their relationship to politics, economics, stratification, education, and family. Focus on concepts, theory, and related research.

329. Medical Sociology. (3:3:0) Prerequisite: Soc 111 or Psych 111.
Social epidemiology, the sick role, sociocultural definitions of and responses to illness, and the organization of medical-health delivery systems.

330. Cultural Sociology. (3:3:0) F, W, Sp, Su
Recent theories and research in sociological approaches to meaning, including cultural systems and institutions, everyday life, symbolism, agency, power, texts, and globalization.

335. Social Change and Modernization in Latin America. (3:3:0)
Contemporary changes in the social institutions and cultures as related to the modernization process.

345. World Populations. (3:3:0) Prerequisite: Soc 111.
Fertility, mortality, and migration patterns of world populations as they relate to current social, economic, political, and religious issues.

350. (Soc-Psych) Introduction to Social Psychology. (3:3:0)
Conformity and obedience; socialization, norms, roles; attitudes, leadership, group processes.

352. (Soc-Psych) Applied Social Psychology. (3:3:0) Prerequisite: Soc-Psych 350.
Applying social psychological theory, research, and methods to such domains as law, business, education, the media, mental health, and physical health.

360. Introduction to Family Sociology. (3:3:0) F, W, Sp
Definitions of "family"; surveying the family as a context for sex, marriage, work, social reproduction, and violence in Western societies.

365. Sociology of Aging. (3:3:0)
Demographic and social factors related to aging: agencies, serving older citizens, and role of community in solving problems of aged. Required for students in gerontology minor and/or certificate programs.

367. Sociology of Gender. (3:3:0) Prerequisite: Soc 111.
Gender in social institutions: family, social hierarchies, economics, education, organizations, religion, and science.

370. The Sociology of Urban Life. (3:3:0) Prerequisite: Soc 111.
Norms, social controls, and social processes in urban areas in both historical and contemporary perspectives.

380. Deviant Behavior and Social Control. (3:3:0) Prerequisite: Soc 111.
Theory and research related to deviance. Specific topics include psychosis, addiction, homosexuality, violence, and rape, among others.

383. Juvenile Delinquency. (3:3:0) Prerequisite: Soc 111.
Lawlessness of children and adolescents: causation, treatment, prevention, and outlook.

389. Social Aspects of Mental Health. (3:3:0) Prerequisite: Soc 111.
Personality disorders and emotional maladjustments that originate in group life; social causation, treatment, and prevention of mental illness.

390R. Special Topics in Contemporary Sociology. (1–3:3:0 ea.) Prerequisite: instructor's consent.
Course content varies from year to year.

399R. Academic Internship. (1–9:0:0 ea.)
Individualized work or volunteer experience in either a research setting or some kind of field placement with an organization.

404. Qualitative Research Methods. (3:3:0) Prerequisite: Soc 300, 307, 310, 311.
Purposes, methods, and limitations of qualitative research. Includes participant observation and hermeneutics skills.

405. Multiple Regression Analysis and Social Science Computing. (3:3:0) Prerequisite: Soc 300; 306 or Stat 221; Soc 307.
Data analysis and computer use in sociology; least squares and logistic regression techniques; SPSS and its use in conducting data analysis. Research report required.

406. Intermediate Applied Social Statistics. (3:3:0) Prerequisite: Soc 306, 405.
Introduction to structural equation models, analysis of variance and covariance, and factor analysis.

408. Survey Research and Social Measurement. (3:3:0) Prerequisite: Soc 300.
Survey research design, measurement, and techniques in the behavioral sciences; research and sampling designs and measurement techniques.

420. Understanding Modern Societies. (3:3:0) Prerequisite: Soc 310.
Comparative-historical theory and research on the political, economic, social, and cultural processes in the formation, social organization, and future prospects of modern societies.

421. Complex Organizations. (3:3:0) Prerequisite: Soc 310.
Complex formal organization perspectives. Bureaucracy, management, structure, and change in private and public sectors. Formation, growth, and partitioning of organizational fields. Writing intensive.

422. Social Stratification. (3:3:0) Prerequisite: Soc 310.
Distributions of money, prestige, and power as they relate to life chances, lifestyle, other social institutions, and social justice.

424. Political Sociology. (3:3:0) Prerequisite: Soc 310.
Analysis of power and decision-making, political institutions, grass root politics, stratification, and political activity, social movements and revolutions, science/religion and politics. Writing intensive.

425. Markets and Society. (3:3:0) W Prerequisite: Soc 310.
Economic sociology exploring social dynamics of market behavior from an interdisciplinary perspective; topics include social factors related to value, price, and price volatility.

426. Sociology of Work and Occupations. (3:3:0) Prerequisite: Soc 310.
Distinction between work and occupation, changes in the nature of work and labor force, impacts of work, mobility in work life, and occupational attainment.

429. Theory of Social Change and Modernization. (3:3:0) Prerequisite: Soc 310.
Social change in contemporary society from diverse theoretical points of view.

445. Labor Markets in Developing Countries. (3:3:0) Prerequisite: Soc 310.
Individual, national, and global forces reshaping labor markets and employment opportunities in developing countries.

450. The Family and Social Change. (3:3:0) Prerequisite: Soc 310.
Changing patterns of family-related behaviors, functions, and forms. Demographic, economic, and ideological forces shaping the family.

460. Issues in Family Sociology. (3:3:0) F, W Prerequisite: Soc 310.
Advanced sociological analysis of current issues relating to the family (e.g., theory, methodology, parenting, marriage, divorce, family crises, race, gender, etc.).

470. Sociology of Law. (3:3:0) Prerequisite: Soc 310.
Law as an institution; influence of law on behavior; relationship between law and institutions; role of law in social change.

481. Crime, Justice, and Corrections. (3:3:0) Prerequisite: Soc 310.
Nature and extent of criminal behavior; current theory and research related to causes of crime and treatment of criminals.

490R. Special Topics in Sociology. (1–3:0:0 ea.) Prerequisite: Soc 310.
Course content varies from year to year.

495R. Directed Reading in Sociology. (1–6:0:0 ea.) Prerequisite: Soc 310.
Individualized reading program supervised by faculty member. Student selects reading topic and completes systematic in-depth reading of related literature.

497R. Directed Research in Sociology. (1–6:0:0 ea.) Prerequisite: Soc 310.
Individualized research program supervised by faculty member. Student selects topic and completes a research project.

500-Level Graduate Courses (available to advanced undergraduates)

524. Advanced Political Sociology. (3:3:0)
Social basis of political behavior. Modern theories and research concerning use of power and decision making.

525. Sociology of Religion. (3:3:0) Prerequisite: Soc 111, 325, or instructor's consent.
Influences of social factors in the development of various religious systems.

527. Sociology of the LDS Church and Its People. (3:3:0)
An advanced analysis of the LDS Church from a social science perspective, including the Church as a new religious movement; LDS culture; the institutionalization process.

528. Sociology of Rural Communities. (3:3:0) Prerequisite: Soc 310, 311, 370, or instructor's consent.
Review and critique of major theoretical and methodological approaches to the study of community, with a focus on rural communities.

530. Sociology of International Development. (3:3:0)
Major theoretical paradigms of development with strategies and practical application in the international setting.

550. (Soc-MFHD) Contemporary Family Theories. (3:3:0) Prerequisite: MFHD 451, Soc 310, 311; or equivalents.
Introduction to basic micro, macro, and processual approaches to the study of the family; social and political theory on the family; and philosophical issues and assumptions underlying family theory, research, and practice.

561. The Family Institution. (3:3:0)
The family in different societies; problems created by various family systems.

565. The Individual and Family in Later Years. (3:3:0)
Developmental aspects of aging, focusing on the biophysical, cognitive, social, affective, and pathological dimensions in people aged 50 and over.

590R. Special Topics in Sociology. (1–3:3:0 ea.) Prerequisite: instructor's consent.
Course content varies from year to year.

595R. Directed Readings. (1–3:0:6 ea.)
Individualized reading program supervised by faculty member. Pass/Fail only.

598R. Pro-Seminar. (1:1:0 ea.)
Current developments in sociology including research, proposals, professional meetings, teaching, and finding a job.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Sociology Faculty

Professors

Bahr, Howard M. (1973) BA, Brigham Young U., 1962; MS, PhD, U. of Texas, Austin, 1964, 1965.
Bahr, Stephen J. (1973) BS, MS, Brigham Young U., 1968, 1969; PhD, Washington State U., 1972.
Brown, Ralph B. (1998) BS, MS, Utah State U., 1986; PhD, U. of Missouri, Columbia, 1992.
Call, Vaughn R. A. (1993) BS, MS, Brigham Young U., 1970, 1974; PhD, Washington State U., 1977.
Chadwick, Bruce A. (1972) BA, MA, PhD, Washington U., 1964, 1965, 1967.
Cornwall, Marie (1986) BA, U. of Utah, 1971; MS, Brigham Young U., 1977; PhD, U. of Minnesota, 1985.
Forste, Renata T. (1995) BS, MS, Brigham Young U., 1984, 1986; PhD, U. of Chicago, 1992.
Heaton, Tim B. (1980) BS, MS, Brigham Young U., 1974, 1975; PhD, U. of Wisconsin, Madison, 1979.
Hoffmann, John P. (1999) BS, James Madison U., 1984; MS, American U., 1985; PhD, State U. of New York, Albany, 1991; MPh, Emory U., 1994.
Jacobson, Cardell K. (1981) BS, Brigham Young U., 1966; MA, PhD, U. of North Carolina, Chapel Hill, 1969, 1971.

Associate Professors

Johnson, Richard E. (1976) BS, Brigham Young U., 1971; MA, PhD, U. of Washington, 1972, 1976.
Knapp, Stan J. (1995) BA, MS, Brigham Young U., 1987, 1989; PhD, Florida State U., 1996.
Ward, Carol (1990) BA, MA, North Texas State U., 1973, 1976; PhD, U. of Chicago, 1992.

Assistant Professors

Burraston, Bert O. (2004) BS, MS, Brigham Young U., 1991, 1994; PhD, U. of Oregon, 2003.
Dufur, Mikaela J. (2000) BA, Brigham Young U., 1994; MA, PhD, Ohio State U., 1996, 2000.
Erickson, Lance D. (2005) BS, MS, Brigham Young U., 1999, 2001; PhD, U. of North Carolina, Chapel Hill, 2005.
Goodsell, Todd (2005) BS, MS, Brigham Young U., 1994, 1998; PhD, U. of Michigan, 2004.
King, Brayden G (2005) BS, MS, Brigham Young U., 1999, 2001; PhD, U. of Arizona, 2005.
Phillips, Kristie J. R. (2005) BS, MS, Brigham Young U., 2000, 2002; PhD, Vanderbilt U., 2005.

Associate Lecturer

Holland, Kimberlee B. (2002) BA, MA, Brigham Young U., 1995, 1997; PhD, Purdue U., 2002.

Emeriti

Duke, James T. (1963) BA, MA, U. of Utah, 1957, 1958; PhD, U. of California, Los Angeles, 1963.
England, J. Lynn (1970) BA, MA, U. of Utah, 1965, 1967; PhD, U. of Pittsburgh, 1971.
Johnson, Barry L. (1965) BS, MS, Brigham Young U., 1963, 1965; PhD, U. of North Carolina, 1977.
Kunz, Phillip R. (1968) BS, MS, Brigham Young U., 1961, 1962; PhD, U. of Michigan, 1967.
Rollins, Boyd C. (1963) BS, Utah State U., 1953; MS, Brigham Young U., 1958; PhD, Cornell U., 1961.
Seggar, John F. (1967) BS, Brigham Young U., 1962; MA, PhD, U. of Kentucky, 1964, 1968.
Smith, Wilford E. (1947) BA, U. of Utah, 1943; MA, Brigham Young U., 1948; PhD, U. of Washington, 1952.
Thomas, Darwin L. (1972) BA, MA, Brigham Young U., 1962, 1964; PhD, U. of Minnesota, St. Paul, 1968.

Spanish and Portuguese

Alvin F. Sherman, Jr., Chair
3190 JFSB, (801) 422-2837

College of Humanities Advisement Center
1175 JFSB, (801) 422-4789

Admission to Degree Program

All degree programs in the Department of Spanish and Portuguese are open enrollment. However, special limitations apply for teaching and translation majors.

The Discipline

The Spanish and Portuguese romance languages and literatures dominate the Iberian Peninsula, major parts of Africa, and the southern portion of the new world from Mexico to the Magellan Straits. These languages, spoken by over 450 million people in twenty-one countries, provide a wide spectrum of cultural, linguistic, and literary variety. Spanish and Portuguese represent vibrant literature that stands at the forefront of twentieth-century excellence and innovation, a linguist's paradise of dialects, rapid change, and development.

Such breadth—plus some 35 million speakers within the borders of the United States itself—gives multiple opportunities for developing skill in the spoken language, as well as in listening, reading, writing, and translation. Studying the Iberian roots of this large and important part of the population and learning about the people's perception of life also brings greater understanding of their values and their struggle for identity. A Spanish or Portuguese major makes for a demanding, intriguing, and pleasurable experience.

Career Opportunities

The field of teaching has always provided good employment opportunities for Spanish majors. In addition, opportunities for both Spanish and Portuguese have been found in government service (translation, U.S. State Department, CIA, FBI, Border Patrol, Peace Corps, NSA, USIA), business, social work, airlines, banking, etc. Many majors go on to professional schools (law, medicine, dentistry, business, etc.), where a liberal arts background is advised. For employment in fields other than teaching, a strong minor or a second major in the employment area is strongly encouraged. Teaching majors are required to complete a teaching minor.

General Information

The Department of Spanish and Portuguese strongly recommends that StDev 317, a 1-credit-hour course, be taken at the end of the sophomore year or the beginning of the junior year. Because liberal arts degrees provide preparation in a variety of useful fields rather than a single career track, this course is recommended to help liberal arts students focus on specific educational and occupational goals and to identify the career options or educational opportunities available to them. The course will introduce them to the resources needed for accessing information about graduate schools, internships, careers, and career development. Students will learn basic employment strategies, including the steps necessary for obtaining employment related to their own specialty.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Portuguese
BA	Spanish
BA	Spanish Teaching
BA	Spanish Translation
Minors	Portuguese
	Spanish
	Spanish Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Portuguese
MA	Spanish
MA	Language Acquisition (Spanish and Portuguese)

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Spanish Resource Center

164 University Parkway Center, (801) 378-8107
E-mail: spanish_resource@email.byu.edu

The Ministry of Education and Culture of Spain, in connection with the Department of Spanish and Portuguese and the Center for the Improvement of Teacher Education and Schooling (CITES), operates the Spanish Resource Center (Centro de Recursos). The purpose of the center is to provide an ample supply of books, computer programs, and didactic materials, both printed and audiovisual, related to the teaching of Spanish language and literature. Researchers, professors, students, educational institutions, coordinators, administrators, and in general all those who may be interested in the knowledge and promotion of Spanish are welcome. To increase the prestige of the Spanish language academically as well as socially, the Spanish Resource Center

- sponsors workshops, seminars, and work groups on topics related to teaching Spanish and researching linguistics and literature;
- organizes conferences, film series, recitals, and cultural activities in general that relate to the Spanish language and culture; and
- promotes and participates in all initiatives that are deemed appropriate and that favor acquisition and use of the Spanish language by students at different educational levels.

Foreign Language Student Residence

The Foreign Language Student Residence provides live-in opportunities for students in Spanish and Portuguese. A twenty-four-hour-a-day Spanish or Portuguese rule assures participants intensive use of the language, under the direction of native speakers. See the department secretary at 3190 JFSB for information.

Language Skills Development

A program to improve and monitor all language skills at each level of course work has been developed by the department, and a final oral proficiency examination is required of all graduating seniors. Writing skills in Spanish or Portuguese courses will advance from writing exercises and short messages in 100-level courses to original short themes in 200-level classes. Papers in the language at the 300-level and more extensive research and vocabulary and full control of structures at the 400-level will complete the program.

Minor, Double Major, or Approved Supporting Course Work Required for Spanish or Portuguese Majors

All Spanish and Portuguese majors are required to complete either a minor (from any department in the university), 15 hours of approved supporting course work, or a double major.

Nonteaching majors who do not wish to complete a formal minor may substitute at least 15 hours of courses from among the following related fields: a second modern foreign language (upper-division courses only), Latin, Greek, English (beyond the GE requirement), linguistics, classical civilization, Latin American history or geography, Spanish/Portuguese history or geography, humanities, archaeology of Spain/Portugal or Latin America, comparative literature, or other areas approved by the department chair.

Nonteaching and nontranslation majors also may meet their minor requirement by completing 15 additional hours consisting of elective Spanish/Portuguese courses or (strongly recommended) a combination of Spanish/Portuguese electives and interdisciplinary work. In all cases these courses must form a coherent program and *must be preapproved* by the department chair.

A double major is an acceptable alternative to a minor.

Foreign Residency

The department strongly recommends that all majors participate in an extended (at least two continuous months) and intensive language and culture experience in a Spanish- or Portuguese-speaking country or area.

A student should complete this requirement by:

1. Residency abroad (may include a Spanish or Portuguese LDS mission, attendance at a foreign university, an advanced exchange program, or similar intensive foreign residence).
2. Participating in BYU Study Abroad Programs in Spain, Portugal, or Latin America.
3. Participating in individual or group-arranged internship programs abroad as approved by the department.

Students unable to participate in one of these programs must spend at least one year (two semesters) in the Foreign Language Student Residence, pledging to use only Spanish or Portuguese within the residence. Prerequisite to this experience is Span/Port 201 or its equivalent; any exceptions must be approved by the department. For further information contact the department secretary or the Foreign Language Student Residence Office, 3086 JFSB, (801) 422-7797.

Portuguese

BA Portuguese (48–69 hours minimum*)

Major Requirements

1. At least 15 hours of upper-division major credit must be taken in residence at BYU.
2. Meet the foreign residency requirement.
3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).

   Note: Latin American Studies or Spanish Studies minors: Port 321, 339, 345 or 355, and 441 or 451 meet requirements for both the Portuguese major and the area studies minor. Only one of these courses may be double-counted (applied to both the major and the minor). Students wishing to complete a Portuguese major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available to you.
4. Complete the following prerequisite courses:
   Port 101, 102, 201, 211R.
   And complete one course from the following:
   Port 202, 315.

   Note: Students with foreign residence experience should take Port 315.

   Note: Prerequisite courses may be waived for those having sufficient proficiency with the language.
5. Complete the following:
   Port 321, 322, 339, 441, 451.
6. Complete one course from the following:
   Port 345, 355.
7. Complete 12 hours from the following:
   Port 326, 329, 345, 355, 395R, 439R, 442, 449R, 452, 453, 459R, 461R, 462R, 480R, 490, 520, 521, 522, 529R.

*Hours include courses that may fulfill university core requirements.

Minor Portuguese (18–35 hours)

Minor Requirements

1. Complete the following prerequisite courses:
   Port 101, 102, 201, 211R.
   And complete one course from the following:
   Port 202, 315.

   Note: Students with foreign residence experience should take Port 315.

   Note: Prerequisite courses may be waived for those having sufficient proficiency with the language.
2. Complete the following:
   Port 321, 339.
3. Complete one course from the following:
   Port 345, 355.
4. Complete one course from the following:
   Port 441, 451.
5. Complete 6 additional upper-division hours from the courses outlined for the major. Port 315 credit may be applied to the Portuguese minor but is not required.

Portuguese (Port)

Undergraduate Courses

101, 102. First-Year Portuguese. (4:5:1 ea.)
Pronunciation, conversation, reading, and fundamentals of grammar. Specific attention to Portuguese as the language of Brazil. Native speakers of Portuguese must enroll in Port 321.

199R. Academic Internship. (1–3:0:0 ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
On-the-job experience evaluated by supervisor and posted on student's transcript.

201. Third-Semester Portuguese. (4:5:0) Prerequisite: Port 102 or three units of high school Portuguese.
Second-year grammar, reading, writing, and conversation. Native speakers of Portuguese must take Port 321.

202. Fourth-Semester Portuguese: Reading and Comprehension. (4:5:0) Prerequisite: Port 201.
Fourth-semester class introducing grammar and culture through study of literature. Not for returned missionaries. Culmination of GE Mathematics/Foreign Language requirement. Native speakers of Portuguese must take Port 321.

211R. First-Semester Conversation. (2:2:1 ea.) Prerequisite: Port 102 or equivalent. Recommended: concurrent enrollment in Port 201.

212. Second-Semester Conversation. (2:2:1) Prerequisite: Port 211 or equivalent.

311R. Third-Year Conversation. (2:2:1 ea.) Prerequisite: Port 211 or equivalent.
Tools course to help students improve oral proficiency. Will not count for major or minor.

315. Intermediate Portuguese Grammar, Reading, and Culture. (3:3:0)
Introduction of culture, literature, and grammatical concerns through reading short stories, novels, and drama in Portuguese. First class for returned Portuguese-speaking missionaries. Fulfills GE Foreign Language requirement. Will count for minor but not for major. Native speakers should take Port 321.

321, 322. Third-Year Portuguese Grammar and Composition. (3:3:0 ea.) Prerequisite: Port 202 or 315, plus 16 hours of Portuguese or the equivalent.

326. Portuguese Phonetics and Pronunciation. (3:3:3) Prerequisite: Port 321 or equivalent.
Underlying concepts of Portuguese speech production and applications to pronunciation.

329. Survey of Luso-Brazilian Linguistics. (3:3:0) Prerequisite: Port 321 or equivalent.
Introduction to linguistics of Portuguese: phonetics, phonology, morphology, syntax, semantics, history of the Portuguese language, philology, dialectology, sociolinguistics, and psycholinguistics.

339. Introduction to Portuguese and Brazilian Literature. (3:3:0) Prerequisite: Port 321 or equivalent.
Readings in modern literature; formal literary analysis.

345. Portuguese Civilization. (3:3:0) Prerequisite: Port 321 or equivalent.
Culture, history, art, music, and traditions of Portugal.

355. Brazilian Civilization. (3:3:0) Prerequisite: Port 321 or equivalent.
Culture, history, art, music, and traditions of Brazil.

395R. Contemporary Culture. (1–3:0:0 ea.) For Study Abroad programs only. Prerequisite: Port 201 or equivalent.
Contemporary Portuguese or Brazilian culture: the people and their customs and institutions.

399R. Academic Internship: Portuguese Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience.

439R. Luso-Brazilian Theatre Production. (3:3:0 ea.)
Theory and practice of dramatic performance. Includes participation in play to be performed during semester.

Note: No more than 3 hours of 439R credit may count toward any degree.

441. Survey of Portuguese Literature. (3:3:0) Prerequisite: Port 339 or equivalent.
Literary periods, genres, and great writers of Portugal.

442. Camões. (3:3:0) Prerequisite: Port 441 or equivalent.

449R. Special Topics in Portuguese Literature. (3:3:0 ea.) Prerequisite: Port 441, 451, or equivalent.
Specific topics in Portuguese (Peninsular) literature. Course content will vary each semester to offer optimum exposure to all areas of Portuguese literature.

451. Survey of Brazilian Literature. (3:3:0) Prerequisite: Port 339 or equivalent.
Literary periods, genres, and great writers of Brazil.

452. Machado de Assis. (3:3:0) Prerequisite: Port 451 or equivalent.

453. Twentieth-Century Brazilian Literature. (3:3:0) Prerequisite: Port 441, 451, or equivalent.

459R. Special Topics in Brazilian Literature. (3:3:0 ea.) Prerequisite: Port 441, 451, or equivalent.
Specific topics in Portuguese (Brazilian) literature. Course content will vary each semester to offer optimum exposure to all areas of Brazilian literature.

461R. African Literature in Portuguese. (3:3:0) Prerequisite: Port 339 or equivalent.
Modern authors from the five African nations whose official language is Portuguese: Angola, Cabo Verde, Guiné Bissau, Mozambique, and the two-island republic São Tomé and Príncipe. Authors include José Craveirinha, Mia Couto, Noémia de Sousa, José Tenreiro, Castro Soromenho, Luandino Vieira, Pepetala, and Baltasar Lopes, among others.

462R. Literature of the Lusophone World. (3:3:0) Prerequisite: Port 339 or equivalent.
Authors from the eight nations whose official language is Portuguese, plus former colonies and present regions of important Portuguese influence. These include Luso-American and Azorean writers, as well as authors from East Timor (formerly Indonesia), Goa (India), and Macau (China).

480R. Directed Research in Portuguese. (1–3:Arr.:0 ea.) Prerequisite: written proposal subject to department approval. Independent Study only.
Under faculty member's direction, designing and conducting research project covering material not normally presented in regular course work. Research paper required. Total Port 480R credit toward bachelor's degree not to exceed 3 hours.

490. Senior Seminar in Portuguese. (1–3:0:0) Prerequisite: senior standing.
Bibliography, research, and writing of senior thesis. Recommended for students planning graduate studies in Portuguese.

491. Senior Proficiency Evaluation. (0:1:0)
Tool course to meet oral proficiency requirement for all majors. No major or minor credit.

500-Level Graduate Courses (available to advanced undergraduates)

520. Advanced Portuguese Grammar. (3:3:0) Prerequisite: Port 321 or equivalent.
Applying contemporary grammatical concepts to problems in Portuguese grammar.

521. Romance Philology. (3:3:0) Prerequisite: Port 321 or equivalent.
Comparative study of evolution of Latin into modern romance languages.

522. History of the Portuguese Language. (3:3:0) Prerequisite: Port 321 or equivalent.
Linguistic sources that contributed to formation of Portuguese.

529R. Special Topics in Portuguese Linguistics. (3:3:0 ea.) Prerequisite: Port 321 or equivalent.
Topics from semantics to dialectology to sociolinguistics.

599R. Academic Internship: Portuguese Internship. (1–3:0:0 ea.) For supervised internship credit on BYU Study Abroad programs only. Prerequisite: Port 321 or equivalent; instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Spanish

BA Spanish (51–85 hours minimum*)

Major Requirements

1. At least 18 hours of upper-division major credit must be taken in residence at BYU.
2. Meet the foreign language residency requirement.

3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).

   Note: Latin American Studies or Spanish Studies minors: Span 321, 339, 345 or 355, and 441 or 451 meet requirements for both the Spanish major and the area studies minor. Only one of these courses may be double-counted (applied to both the major and the minor). Students wishing to complete a Spanish major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available to you.

4. Complete the following prerequisite courses:
   Span 101, 102, 105, 106, 111R, 112R, 205, 206.

   Note: Students with foreign residence experience usually begin with Span 321.

   Note: Prerequisite courses may be waived for those having sufficient proficiency with the language.

5. Complete the following:
   Span 321, 322, 339, 441, 451.

6. Complete one course from the following:
   Span 345, 355.

7. Complete 18 hours from the following:
   Complete at least one linguistics course from the following:
   Span 326, 329, 421, 423, 425, 429R, 520, 521, 522, 529R.
   Complete at least one literature course from the following:
   Span 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 456R, 458R, 459R, 461.
   Complete four additional courses (12 hours) from the linguistics or literature electives above or from the following (Span 345 and 355 will not double-count):
   Span 345, 355, 365, 395R, 430R, 438, 439R, 477, 480R, 490.

8. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of *advanced—low* or higher.

*Hours include courses that may fulfill university core requirements.

BA Spanish Teaching (75–108 hours minimum*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Major Requirements

1. At least 18 hours of upper-division major credit must be completed in residence at BYU.
2. Meet the foreign language residency requirement.
3. Complete an approved teaching minor (approximately 16–21 hours).
4. Complete the following prerequisite courses:
   Span 101, 102, 105, 106, 111R, 112R, 205, 206.

   Note: Students with foreign residence experience usually begin with Span 321.

   Note: These prerequisite courses may be waived for those having sufficient proficiency with the language.

5. Complete the following:
   Span 321, 322, 326, 339, 345, 355, 377, 378, 380, 441, 451.

   Note: Fingerprinting and FBI clearance must be completed prior to enrolling in Span 380.

   Note: Span 377 and 378 must be taken before student teaching.

6. Complete 6 hours from the following courses:
   Span 329, 365, 395R, 421, 423, 425, 429R, 430R, 438, 439R, 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 456R, 458R, 459R, 461, 480R, 490, 520, 521, 522, 529R.

7. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of *advanced—low* or higher.

8. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      Sc Ed 276R (3 hours), 350, 353, 379.
   b. Complete 12 hours of one of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

BA Spanish Translation (51–85 hours minimum*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this major.

Major Requirements

1. At least 18 hours of upper-division major credit must be completed in residence at BYU.
2. Meet the foreign language residency requirement.
3. Complete a minor (approximately 16–21 hours), second major (approximately 30–60 hours), or supporting course work (15 hours).
4. Complete the following prerequisite courses:
   Span 101, 102, 105, 106, 111R, 112R, 205, 206.

   Note: Students with foreign residence experience usually begin with Span 321.

   Note: These prerequisite courses may be waived for those having sufficient proficiency with the language.

   Note: Students wishing to major in Spanish translation and interpretation must apply for admission to the program and pass an entrance exam in Spanish and English. Contact the department secretary the first week of February each year to obtain the official date and place of the exam.

   Note: Latin American Studies or Spanish Studies minors: Span 321; 339; 345 or 355; 441; and 451 meet requirements for both the Spanish translation major and the area studies minor. Only one of these courses may be doubly counted (applied for both the major and minor). Students wishing to complete a Spanish major and one of these area studies minors must take an additional 6–9 hours chosen from the approved electives for either major or minor. Consult the department and the advisement center for clarification of the choices available.

5. Complete the following:
   Span 321, 322, 339, 425 (or 421), 441, 451.

   Note: Span 321 and 322 must be completed with a grade of B or better.

6. Complete one course from the following:
   Span 345, 355.

7. Complete the following courses in sequence:
   Span 415A, 415B, 416A, 416B, 417A, 417B, 418.

   Note: Span 322, 425, and either Span 345 or 355 must be taken before Span 415A.

8. Complete 3 hours from the following:
   Span 326, 329, 345, 355, 365, 395R, 421, 423, 429R, 430R, 438, 439R, 440, 443R, 444, 446R, 448R, 449R, 450R, 454R, 455R, 458R, 459R, 461, 477, 480R, 490, 520, 521, 522, 529R.

9. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that Spanish majors will pass with a rating of *advanced—low* or higher.

*Hours include courses that may fulfill university core requirements.

Minor Spanish (18–42 hours)

Minor Requirements

1. Complete the following prerequisite courses (or equivalent experience):
   Span 101, 102, 105, 106, 205, 206.
2. Complete the following:
   Span 321, 322, 339.
3. Complete one course from the following:
   Span 345, 355.
4. Complete one course from the following:
   Span 441, 451.
5. Complete 3 hours from upper-division courses outlined for the major.

Minor Spanish Teaching (21–37 hours)

Minor Requirements

1. Complete the following prerequisite courses (or equivalent experience):
   Span 101, 102, 105, 106, 205, 206.
2. Complete the following:
   Span 321, 322, 326, 339, 377, 378.

   Note: Span 377 and 378 must be taken before student teaching. Span 377 will be waived for students majoring in another language who have had the course in that language. Students who waive the class will need to take 3 additional elective hours from the 300-, 400-, or 500-level courses in Spanish.
3. Complete one course from the following:
   Span 345, 355.
4. Complete one course from the following:
   Span 441, 451.
5. Complete the following:
   Span 491.

   Note: The Senior Proficiency Evaluation is taken in connection with Span 491. It is expected that students will pass with a rating of *advanced—plus* or higher.

Spanish (Span)

Undergraduate Courses

100A. Introductory Spanish. (2:3:1) Independent Study also.
First semester for those who have had no Spanish and desire maximum time for assimilation.

100B. Second Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100A.
Continuation of Span 100A.

100C. Third Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100B.
Continuation of Span 100B.

100D. Fourth Semester, Introductory Spanish. (2:3:1) Prerequisite: Span 100C.
Continuation of Span 100C.

101, 102. Foundational Spanish 1, 2. (4:5:2 ea.) F, W, Sp, Su
For students with no previous Spanish. Fundamentals of Spanish, emphasizing communication. (Accelerated sections available.) Pass/Fail only.

105. University Spanish 1. (4:5:1) F, W, Sp, Su Prerequisite: two years of high school Spanish or Span 101, 102 or placement by diagnostic test.
Continued development of grammar, cultural understanding, reading, writing, and conversation skills as introduced in foundational courses. Students are expected to attain an *intermediate—mid* proficiency level.

106. University Spanish 2. (4:5:1) F, W, Sp, Su Prerequisite: Span 105.
Expanded development of grammar, cultural understanding, reading, writing, and conversation skills as introduced in foundational and intermediate courses. Students are expected to attain an *intermediate—mid* to *intermediate—high* proficiency level.

111R. Spanish Conversation 1. (2:2.5:1 ea.) F, W, Sp, Su Prerequisite: two years of high school Spanish or Span 101, 102, or equivalent. Recommended: concurrent enrollment in Span 105.
Development of conversaton skills in Spanish.

112R. Spanish Conversation 2. (2:2.5:1 ea.) F, W, Sp, Su Prerequisite: three years of high school Spanish or Span 105, or equivalent. Recommended: concurrent enrollment in Span 106.
Continued development of conversation skills in Spanish.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

205. University Spanish 3. (4:5:1) F, W, Sp, Su Prerequisite: four years of high school Spanish or Span 106 or equivalent or placement by diagnostic test.
Continued development of grammar, cultural understanding, conversation skills, writing, and reading through the study of literature. Students are expected to attain an *intermediate—high* proficiency level. Fulfills the university core Languages of Learning requirement.

206. University Spanish 4. (4:5:1) F, W, Sp, Su Prerequisite: Span 205.
Expanded development of grammar, cultural understanding, conversation skills, writing, and reading through the study of literature. Students are expected to attain a strong *intermediate—high* or *advanced—low* proficiency level.

311R. Spanish Oral Proficiency Preparation. (2:2:1 ea.) Prerequisite: Span 212 or equivalent.
Tools course to help students meet oral proficiency requirements for major and minor. Will not count for major or minor.

321. Third-Year Spanish Reading, Grammar, Culture, and Composition 1. (3:3:0) F, W, Sp, Su Prerequisite: Span 206 or equivalent.
First semester of a two-semester sequence. Intensive study and practice with Spanish grammar, vocabulary, and writings incorporating cultural and literary readings. First class for returned Spanish-speaking missionaries. Fulfills the university core Languages of Learning requirement. Required for Spanish major and minor.

322. Third-Year Spanish Reading, Grammar, Culture, and Composition 2. (3:3:0) F, W, Sp, Su Prerequisite: Span 321 or equivalent.
Second semester of a two-semester sequence. Intensive study and practice with Spanish grammar, vocabulary, and writings incorporating cultural and literary readings. Some sections have readings and writing assignments focusing on the professions. Required for Spanish major and minor.

326. Spanish Phonetics and Pronunciation. (3:3:0) Prerequisite: Span 202 or equivalent.
Spanish sound system; underlying concepts of Spanish speech production and applications to pronunciation.

329. Survey of Hispanic Linguistics. (3:3:0) Prerequisite: Span 321 or equivalent.
Introduction to linguistics of Spanish: phonetics, phonology, morphology, syntax, semantics, history of the Spanish language, philology, dialectology, sociolinguistics, and psycholinguistics.

339. Introduction to Spanish Literature. (3:3:0) Prerequisite: Span 322 or concurrent enrollment. Course is prerequisite to 400-level literature courses.
Readings in modern Hispanic literatures, focusing on formal literary analysis.

345. Iberian Civilization. (3:3:0) Prerequisite: Span 322 or concurrent enrollment.
Culture, history, art, music, and traditions of Spain.

355. Ibero-American Civilization. (3:3:0) Prerequisite: Span 322 or concurrent enrollment.
Culture, history, art, music, and traditions of Spanish America.

365. Mexican-American Culture. (3:3:0) Prerequisite: Span 202 or equivalent.
Contemporary culture (education, popular and fine arts, worldview, attitudes, etc.) of the Mexican-American in the U.S.

Note: Prospective teachers should take Span 377 and 378 just before student teaching and after as many upper-division Spanish courses as possible.
Spanish-teaching majors and minors must take both Span 377 and 378.

377. Spanish Teaching Methods 1. (3:3:2) Prerequisite: Span 321, 326; 345 or 355; Sc Ed 276R; fingerprinting and FBI clearance for Spanish teaching majors and minors.
History of language teaching methods; standards-based unit and lesson planning; strategies for teaching speaking, listening, reading, writing, grammar, and vocabulary.

378. Spanish Teaching Methods 2. (3:3:2) Prerequisite: Span 377.
Strategies for teaching culture; use of instructional media and technology; assessment of learner performance; foreign language program models; planning for continuing professional development.

380. Practicum in Teaching Spanish. (1:0:3) Prerequisite: Sc Ed 276R; Span 377; concurrent enrollment in Span 378; Spanish teaching major status.
Implementing meaningful and engaging instruction for secondary students in Spanish; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

395R. Contemporary Culture. (1–3:Arr.:Arr. ea.) For Study Abroad programs only. Prerequisite: Span 102 or equivalent.
Contemporary Spanish (or Spanish- American) culture: the people and their customs and institutions.

399R. Academic Internship: Spanish Language Field Experience. (1–6:0:0 ea.) Prerequisite: program coordinator's consent.
On-the-job experience.

415A. Beginning Translation and Interpretation, English to Spanish. (1.5:3:1) F 1st blk. Prerequisite: Span 321, 322, with a B grade or better.
Introduction to history, theory, and principles of translation and interpretation dealing specifically in English to Spanish.

415B. Beginning Translation and Interpretation, Spanish to English. (1.5:3:1) F 2d blk. Prerequisite: Span 415A.
Introduction to history, theory, and principles of translation and interpretation, dealing specifically in Spanish to English.

416A. Intermediate Translation and Interpretation, English to Spanish. (1.5:3:1) W 1st blk. Prerequisite: Span 415B.
Systematic study and contrastive exercises in translation and interpretation from English to Spanish. Translation of texts in general conceptual fields.

416B. Intermediate Translation and Interpretation, Spanish to English. (1.5:3:1) W 2d blk. Prerequisite: Span 416A.
Systematic study and contrastive exercises in translation and interpretation from Spanish to English. Translation of texts in general conceptual fields.

417A. Advanced Translation and Interpretation, English to Spanish. (1.5:3:1) F 1st blk. Prerequisite: Span 416B.
Translation of texts in specific fields. Simultaneous interpretation. From English to Spanish.

417B. Advanced Translation and Interpretation, Spanish to English. (1.5:3:1) F 2d blk. Prerequisite: Span 417A.
Translation of texts in specific fields. Simultaneous interpretation. From Spanish to English.

418. Translation and Interpretation Project. (3:3:0) Prerequisite: Span 417A,B.
Individual translation and/or interpretation projects.

421. Fourth-Year Grammar. (3:3:0) F, W Prerequisite: Span 321, 322.
Fourth-year study of Spanish grammar and usage.

423. Border Spanish. (3:3:0) Prerequisite: Span 321 or equivalent.
Mexican-American speech patterns, including language contact and bilingualism. Previous course in linguistics strongly recommended.

425. Contrastive Analysis of the Structures of Spanish and English. (3:3:0) Prerequisite: Span 321.
Contrastive analysis of phonology, morphology, syntax, and semantics of Spanish and English.

429R. Special Topics in Spanish Linguistics. (3:3:0 ea.) Prerequisite: Span 326 or 329.
Course content varies yearly; focuses on specific area of linguistics such as dialectology or sociolinguistics.

430R. Special Topics in Hispanic Culture. (3:3:0) F, W, Sp, Su Prerequisite: Span 322 or concurrent enrollment.
Regional and thematic approaches to Hispanic culture. Subject matter will vary.

438. Hispanic Cinema. (3:3:0) Prerequisite: Span 339 or equivalent.
Introduction to study of film; background in appreciating best of motion picture art in Spain and Spanish America. Previous experience with film useful but not required.

439R. Hispanic Theatre Production. (3:3:0 ea.) Prerequisite: director's consent.
Theory and practice of dramatic performance. Includes participation in play to be performed during semester.

Note: No more than 3 hours of 439R credit may count toward any degree.

440. Medieval Spanish Literature. (3:3:0) Prerequisite: Span 441 or equivalent.
Spanish literature from *El Cantar de Mió Cid* (1140) through *La Celestina* (1499).

441. Survey of Spanish Literature. (3:3:0) Independent Study also. Prerequisite: Span 339.
Literary masterpieces of Spain.

443R. Golden Age Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Sixteenth- and seventeenth-century Spanish literature.

444. *Don Quijote.* (3:3:0) Prerequisite: Span 441 or equivalent.
In-depth study of Cervantes' *El ingenioso hidalgo don Quijote de la Mancha.*

446R. Nineteenth-Century Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Romanticism (1770s through 1870s) and/or the novels of Benito Pérez Galdós and his contemporaries.

448R. Twentieth-Century Spanish Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Genre (twentieth-century novel, drama, or poetry) or particular school (Generation of 1898, Generation of 1927, etc.) emphasized.

449R. Special Topics in Spanish Literature. (3:3:0 ea.) Prerequisite: Span 441 or equivalent.
Specific topics in Spanish (peninsular) literature. Course content will vary each semester to offer optimum exposure to all areas of Spanish literature.

450R. Early Spanish-American Literature. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Indigenous literature (Maya, Nahuatl, etc.) and other texts written in Spanish Colonial America through eighteenth century.

451. Survey of Hispanic-American Literature. (3:3:0) Independent Study also. Prerequisite: Span 339.
Literary masterpieces of Spanish America.

454R. The Spanish American Novel. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Selected Spanish-American novelists such as Juan Rulfo, Gabriel Garciá Márquez, Alejo Carpentier, Mario Vargas-Llosa, etc.

455R. Spanish American Poetry. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Selected Spanish-American poets, movements, and national traditions.

456R. Spanish American Drama. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Twentieth-century theatre from Spanish America and Brazil.

458R. Hispanic-American Short Story. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Introduction and development of an important literary genre in Spanish America, including works of Jorge Luis Borges, Julio Cortázar, Juan Rulfo, Gabriel Garciá Márquez, etc.

459R. Special Topics in Spanish American Literature. (3:3:0 ea.) Prerequisite: Span 451 or equivalent.
Specific topics in Latin American literature. Course content will vary each semester to offer optimum exposure to all areas of Latin American literature.

461. Spanish-Speaking American (Mexican-American) Literature. (3:3:0) Prerequisite: Span 339 or instructor's consent.
Spanish-English literature of the Mexican-American within the United States.

477. Techniques of Spanish Instruction. (3:3:0) Prerequisite: Span 321, 322, 326, 339; 345 or 355.
Techniques for teaching the four language skills and grammar, vocabulary, and culture; use of technology; assessing language achievement. For students not enrolled in Spanish teaching major or minor.

480R. Directed Research in Spanish. (1–3:Arr.:0 ea.) Prerequisite: written proposal subject to department approval. Independent Study only.
Under faculty member's direction, designing and conducting research project covering material not normally presented in regular course work. Research paper required. Total Span 480R credit toward bachelor's degree not to exceed 3 hours.

490. Senior Seminar in Spanish. (3:3:0) Prerequisite: senior standing.
Bibliography, research, and writing of senior thesis. Recommended for students planning graduate studies in Spanish.

491. Senior Proficiency Evaluation. (0:1:0)
Tool course to meet oral proficiency requirement for all majors and teaching minors. No major or minor credit.

500-Level Graduate Courses (available to advanced undergraduates)

520. Problems in Spanish Grammar. (3:3:0)
Application of contemporary grammatical concepts to problems in Spanish grammar.

521. Romance Philology. (3:3:0)
Comparative study of evolution of Latin into modern romance languages.

522. History of the Spanish Language. (3:3:0)
Linguistic sources that contributed to formation of the Spanish language.

529R. Special Topics in Spanish Linguistics. (3:3:0 ea.) Prerequisite: Span 520, 522.
Topics include semantics, dialectology, and sociolinguistics.

577. Spanish Language Teaching Procedures. (3:3:2) For public school teachers.
Mastery of skills specific to foreign language instruction. Lectures, demonstrations, practical experience.

599R. Academic Internship: Spanish Internship. (1–3:0:0 ea.) For supervised internship credit on BYU Study Abroad programs only. Prerequisite: Span 321 and instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Spanish and Portuguese Faculty

Professors

Alba, Orlando (1993) BA, U. Católica Madre y Maestra, 1972; MA, U. of Puerto Rico, 1978; PhD, U. Nacional de Educación a Distancia, Madrid, Spain, 1988.
Cluff, Russell M. (1983) BA, MA, Brigham Young U., 1972, 1974; PhD, U. of Illinois, 1978.
Larson, Jerry W. (1980) BA, Utah State U., 1969; MA, Brigham Young U., 1974; PhD, U. of Minnesota, Minneapolis, 1977.
Lund, Christopher C. (1992) BA, Brigham Young U., 1967; MA, PhD, U. of Texas, Austin, 1970, 1974.
Lyon, Thomas E. (Ted) (1972) BA, U. of Utah, 1963; PhD, U. of California, Los Angeles, 1967.
Quackenbush, L. Howard (1970) BA, MA, Brigham Young U., 1965, 1967; PhD, U. of Illinois, 1970.
Rosenberg, John R. (1985) BA, MA, Brigham Young U., 1979, 1981; MA, PhD, Cornell U., 1984, 1985.
Sherman, Alvin F., Jr. (1999) BA, MA, Brigham Young U., 1985, 1987; PhD, U. of Virginia, 1990.
Williams, Frederick G. (1999) Gerrit de Jong, Jr., Distinguished Professor of Luso-Brazilian Studies; BA, Brigham Young U., 1965; MA, PhD, U. of Wisconsin, 1967, 1971.
Williams, G. Lynn (2000) BA, PhD, U. of London, England, 1973, 1978.

Associate Professors

Fails, Willis Clark (1981) BA, MA, Brigham Young U., 1975, 1977; PhD, U. of Texas, Austin, 1984.
García, Mara Lucy (1996) BA, MA, Brigham Young U., 1990, 1992; PhD, U. of Kentucky, 1997.
Hegstrom, Valerie (1994) BA, MA, Brigham Young U., 1982, 1986; MA, PhD, U. of Kansas, 1988, 1992.
Labrum, Marian B. (1974) BA, MA, Brigham Young U., 1972, 1975; PhD, Middlebury Coll., 1988.
Laraway, David P. (1998) BA, MA, Brigham Young U., 1992, 1994; PhD, Cornell U., 1998.
Meredith, Robert Alan (1976) BA, MA, Brigham Young U., 1969, 1974; PhD, Ohio State U., 1976.

Pratt, Dale J. (1994) BA, Brigham Young U., 1990; PhD, Cornell U., 1994.
Smead, Robert N. (1998) BA, MA, Brigham Young U., 1981, 1983; PhD, U. of Texas, Austin, 1988.
Stallings, Gregory C. (1999) BA, MA, Brigham Young U., 1989, 1993; PhD, U. of California, Irvine, 1999.
Turley, Jeffrey (1989) BA, MA, Brigham Young U., 1982, 1984; PhD, U. of California, Berkeley, 1992.
Weatherford, Douglas (1996) BA, Brigham Young U., 1988; PhD, Pennsylvania State U., 1997.

Assistant Professors
Bateman, Blair E. (2002) BA, MA, Brigham Young U., 1990, 1995; PhD, U. of Minnesota, 2002.
Hague, Daryl R. (1994) BA, MA, Brigham Young U., 1987, 1996; JD, U. of Washington, 1990; PhD, State U. of New York, Binghamton, 2002.
Preto-Bay, Ana (2003) BA, U. Clássica de Lisboa, Portugal, 1985; MA, U. of Utah, 1987; PhD, Brigham Young U., 2002.

Associate Teaching Professor
Hoskisson, Joaquina Valtierra de (1990) BA, MA, Brigham Young U., 1971, 1974.

Assistant Teaching Professor
Knapp, Nieves (1997) BA, BA, U. of Oviedo, Spain, 1986, 1990; MA, Brigham Young U., 1995; PhD, U. of Oviedo, Spain, 2003.

Emeriti
Anderson, C. Dixon (1956) BA, Brigham Young U., 1953; MA, PhD, U. of Texas, Austin, 1956, 1965.
Ashworth, Peter P. (1966) AA, Bakersfield Coll., 1952; BA, Brigham Young U., 1962; PhD, U. of Oklahoma, 1967.
Brown, Jack V. (1964) BA, MA, Brigham Young U., 1957, 1960.
Clegg, J. Halvor (1972) BA, Brigham Young U., 1964; MA, PhD, U. of Texas, Austin, 1967, 1969.
Compton, Merlin D. (1964) BA, MA, Brigham Young U., 1952, 1954; PhD, U. of California, Los Angeles, 1959.
Dennis, Ronald D. (1966) BA, Brigham Young U., 1964; MA, PhD, U. of Wisconsin, Madison, 1965, 1972.
Dowdle, Harold L. (1968) BA, MA, Brigham Young U., 1948, 1949; PhD, Stanford U., 1954.
Forster, Merlin H. (1987), H. Darrel Taylor Distinguished Professor of Latin American Literature; BA, Brigham Young U., 1956; MA, PhD, U. of Illinois, 1957, 196[illegible]
Hall, Wendell H. (1966) BA, MA, U. of Utah, 1952, 1953; PhD, Inter-American U., Mexico, 1974.
Jackson, T. Wendell (1968) BA, Brigham Young U., 1956; PhD, Ohio State U., 1968.
Jensen, Gordon K. (1969) BA, Brigham Young U., 1963; MA, PhD, U. of Wisconsin, Madison, 1966, 1975.
Meléndez, Gloria S. (1978) BA, U. of Utah, 1955; PhD, Brigham Young U., 1980.
Moon, H. Kay (1963) BA, MA, Brigham Young U., 1957, 1959; PhD, Syracuse U., 1963.
Ramsey, Myriam (1975) Dipl, Pontifícia Universidade Católica do Brasil, Campinas, Brazil, 1954; BA, MAT, Georgia State U., 1971, 1973; PhD, U. of North Carolina, Chapel Hill, 1975.
Rosen, Harold E. (1963) BA, MA, Brigham Young U., 1954, 1959; PhD, U. of Oregon, 1966.
Shreeve, Lyman Sidney (1965) BA, MA, Brigham Young U., 1949, 1951; PhD, Inter-American U., Mexico, 1970.
Taylor, James Scott (1962) BA, MA, Brigham Young U., 1957, 1960; PhD, Ohio State U., 1967.
Valentine, Amy Y. (1970) BA, Brigham Young U., 1946.

Statistics

Del T. Scott, Chair
230 TMCB, (801) 422-4505

College of Physical and Mathematical Sciences Advisement Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

All degree programs in the Department of Statistics are open enrollment.

The Discipline

The statistician's job is to help determine what data are to be collected, how to collect them to avoid biases and distortions, and then how to turn those data into information that other people can understand to help solve problems and reach sound decisions. From the predictions of the political pollster to exacting analyses of pharmaceutical research, the breadth and diversity of statistical applications are injected into nearly all aspects of modern life.

Career Opportunities

The curriculum and degrees offered through the Department of Statistics are designed to equip students with decision-making skills for careers as professional statisticians in industrial organizations, government agencies, insurance companies, pharmaceutical companies, universities, and research institutes. The technical tools statisticians acquire are useful in many areas, and for this reason a statistics degree is also excellent preparation for professional programs in law, business administration, and public administration.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Actuarial Science
BS	Statistics
	Emphases:
	Statistical Science
	Biostatistics
	Business Analysis
	Quality Science
BS-MS	Integrated Master's Program
Minor	Statistics

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Statistics

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

1. It is recommended that a student complete the following courses in high school:

   3 units of English
   1 unit of physical science, either chemistry or physics.
   4 units of mathematics, consisting of 2.5 units of algebra, 1 unit of geometry, and 0.5 unit of trigonometry. This should qualify students to begin college mathematics with Math 112, analytic geometry and calculus.

   Because mathematics provides the foundation for all work in the physical and mathematical sciences, particular attention is paid to high school preparation in this subject.

   To decide which mathematics course should be taken first, write to the Mathematics Department, 292 TMCB, and request a mathematics placement test.

2. Students are encouraged to complete 15 credit hours each semester. Taking fewer credits substantially increases the cost and the number of semesters to graduate.

3. An integrated BS/MS program is available. This program allows students in all undergraduate emphases to receive their bachelor's and master's degree in five years of schooling. It is available only if students begin a major in statistics as freshmen or start early enough in the program to match the pace required to progress through it in a five-year period.

Major Requirements for All Statistics Programs

1. No more than 3 hours of D credit is allowed in major courses.
2. Complete the following preparation core courses:
   Math 112, 113.
3. Complete one course from the following:
   Stat 221, 321, 331, 332.

   Note: Students who have passed the AP statistics exam or an introductory statistics course should not take Stat 221.
4. Complete the following statistics core courses:
   Stat 291, 292, 336, 337.
5. Complete one of the majors or emphases listed below.

BS Actuarial Science (57 hours*)

Major Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Econ 110.
   Math 214, 343.
   Stat 470, 474, 475.
3. Complete 18 credit hours from the following:
   Acc 200, 210.
   Bus M 300.
   C S 142.
   Econ 380, 381, 382, 388, 450, 588.
   Stat 224, 331, 334, 424, 431, 434, 435, 442, 462, 466, 469, 496R, 497R, 545.

Recommended Courses

It is recommended that students take Acc 200, Bus M 300, Econ 380, 381, and either Stat 469, Econ 388, or Econ 588.

*Hours include courses that may fulfill university core requirements.

BS Statistics: Statistical Science Emphasis (57 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Math 214, 343.
   Stat 441, 442.
3. Complete 24 credit hours from the following, with at least 15 from the statistics list:
   C S 142.
   Math 315, 316, 334, 480.
   Stat 224, 331, 334, 424, 431, 434, 435, 462, 466, 469, 496R, 497R, 535, 536, 538, 545.

Recommended Courses

It is recommended that students take Stat 224, 424, 431, 435, 469. Students planning graduate studies should also take Math 315, 316. (See Mathematics section of this catalog for prerequisites.)

*Hours include courses that may fulfill university core requirements.

BS Statistics: Biostatistics Emphasis (59–63 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Math 214, 343.
   Stat 441, 442.
3. Complete a minor offered by the College of Biology and Agriculture, or equivalent departmentally approved course work (approximately 14–18 hours).
4. Complete 12 credit hours from the following:
   C S 142.
   Hlth 375.
   Stat 224, 331, 334, 424, 431, 434, 435, 466, 469, 496R, 497R, 535, 536, 538, 545.

Recommended Courses

It is recommended that students take Stat 224, 431. Students planning graduate studies should also take Math 315, 316. (See Mathematics section of this catalog for prerequisites.)

*Hours include courses that may fulfill university core requirements.

BS Statistics: Business Analysis Emphasis (57 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Stat 224, 334, 421, 431.
3. Complete one course from the following:
   Stat 434, 462, 469.
4. Complete the following:
   Acc 200.
   Bus M 300.
   Econ 110.
5. Complete 12 credit hours from the following:
   Stat 331, 332, 424, 434, 435, 462, 466, 469, 496R, 497R, 536.

Recommended Courses

It is recommended that students take Stat 496R (internship course) and earn a management minor.

*Hours include courses that may fulfill university core requirements.

BS Statistics: Quality Science Emphasis (59–66 hours*)

Emphasis Requirements

1. Complete the major requirements listed above.
2. Complete the following:
   Stat 224, 332, 421, 431, 462, 466.
3. Complete two courses from the following:
   Acc 200.
   Bus M 300.
   Econ 110.
4. Complete one of the following minors or equivalent departmentally approved course work (approximately 14–18 hours):
   Food Science (16 hours).
   Political Science (21 hours).

*Hours include courses that may fulfill university core requirements.

Minor Statistics (18 hours*)

Minor Requirements

1. Complete one course from the following:
   Stat 221, 321, 331, 332.
2. Complete the following:
   Stat 336, 337.
3. Complete nine additional credit hours from courses numbered 334 or higher (excluding Stat 472).

Note: Stat 510 and 511 can be taken in place of but not in addition to Stat 221 and 336.

*Hours include courses that may fulfill university core requirements.

Statistics (Stat)

Undergraduate Courses

105. Introduction to Statistics. (3:3:2) F, W, Su Prerequisite: Math 97 or equivalent.
Fundamental ideas and applications of statistics.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

221. Principles of Statistics. (3:3:2) F, W, Sp, Su Honors also. Prerequisite: Math 110 or equivalent.
Stemplots, boxplots, histograms, scatterplots; central tendency, variability; confidence intervals and hypothesis testing involving one and two means and proportions; contingency tables, regression; computer package.

224. Statistical Computing 1. (3:3:2) F, W Prerequisite: Stat 221 or equivalent with instructor's consent.
Statistical programming using the data step in SAS; basic statistical Procs; Proc SQL; ODS; MACROS; introduction to S-Plus.

291, 292. Teaching Elementary Statistics in a Laboratory Setting. (0.5:0:2 ea.) F, W, Sp, Su Prerequisite: for 291: Stat 221; for 292: Stat 291.
Supervised training and experience in teaching statistical concepts, managing lab experiences, using active learning strategies, and evaluating student performance.

301. Statistics and Probability for Secondary Educators. (3:3:2) F, Sp Prerequisite: Math 113.
Statistics and probability, emphasizing secondary-specific curriculum. Principles of counting, probability distributions, density functions, graphical methods, descriptive and inferential statistics, computer package.

321. Elements of Mathematical Statistics. (3:3:2) F, Su Prerequisite: Math 113 or 119 or equivalent.
Probability, random variables, frequency distributions, estimation and tests of hypotheses from a theoretical standpoint.

331. Introduction to Bayesian Statistics. (3:3:0) W Prerequisite: Math 113.
The scientific method; conditional probability; Bayesian methods; models for proportions; densities for proportions; models for means; densities for means; regression analysis.

332. Quality Improvement for Industry. (3:3:1) F, W, Sp Prerequisite: Math 112 or 119.
Quality management philosophies (Deming, etc.) Strategies for continuous improvement. Graphical and numerical methods of data analysis. Process control charts. Design and analysis of experiments for process characterization and improvement.

333. Utah Colleges Exit Poll Administration. (2:2:0) F even yr. Prerequisite: Stat 334 or concurrent enrollment.
Planning and executing KBYU/Utah Colleges Exit Poll.

334. Methods of Survey Sampling. (3:3:2) F Prerequisite: Stat 221 or equivalent.
Sampling frames, questionnaire design; simple random, systematic, stratified, and cluster sampling methods, comparing domain means, contingency table analysis.

336. Statistical Methods 1. (6:3:3) F, W Prerequisite: Stat 221, Math 113.
Estimation and hypothesis testing, simple linear regression, multiple regression, subset selection procedures; residual, influence, and collinearity diagnostics.

337. Statistical Methods 2. (3:3:0) F, W Prerequisite: Stat 336.
Single-factor analysis of variance; multifactor analysis of variance; analysis of factor level means; diagnostics; analysis of covariance; basic study design; random effects.

421. Introduction to Probability and Statistical Theory. (3:3:0) W Prerequisite: Math 113 or equivalent; Stat 336.
Probability; random variables; probability models; methods of estimation; sampling distribution and the Central Limit Theorem; Neyman-Pearson hypothesis testing.

424. Statistical Computing 2. (3:3:2) F Prerequisite: Stat 224.
S Plus, statistical graphics, SAS macros, SAS Proc IML, and simulation.

431. Experimental Design. (3:3:0) F Prerequisite: Stat 337 or 511.
Basic designs, power and sample size, Latin squares, incomplete blocks, change-over designs, factorials, fractional factorials, confounding, split-plots, response surface designs.

433. Utah Colleges Exit Poll Design. (2:2:0) F even yr. Prerequisite: concurrent enrollment in Stat 434.
Planning and executing KBYU/Utah Colleges Exit Poll.

434. Advanced Sampling. (3:3:2) F even yr. Prerequisite: Stat 334; 421 or 441 or 470 or departmental consent.
Estimation in systematic, simple random, stratified, cluster, and PPS sampling and mixtures of these; ratio estimation, sample size determination and principles of sample allocation.

435. Nonparametric Statistical Methods. (3:3:0) F Prerequisite: Stat 337 or 511 or equivalent.
Permutation tests, rank-based methods, analysis of contingency tables, bootstrap methods, curve fitting.

441. Statistical Theory 1. (3:3:0) F, W Prerequisite: Math 214.
Axiomatic probability theory for discrete and continuous random variables; moment-generating functions; conditional probability; stochastic independence; transformations; limiting distributions; stochastic convergence; central limit theorem.

442. Statistical Theory 2. (3:3:0) F, W Prerequisite: Stat 441.
Sufficiency and completeness; point and interval estimation; hypothesis testing; Cramer-Rao inequality; some asymptotic results; Bayesian methods.

462. Quality Control and Industrial Statistics. (3:3:2) F odd yr. Prerequisite: Stat 332 or 336. Recommended: Stat 337.
Six sigma; tools with which to define, measure, analyze, improve, and control. Advanced concepts in control charts; applying experimental design for process and product improvement.

466. Introduction to Reliability. (3:3:2) W Prerequisite: Stat 332 or 361; 321 or 421 or 441.
Mathematics, distributions, management, and maintenance of basic reliability concepts; collection and analysis of test data; fault tree analysis; applying reliability in various areas.

469. Applied Time Series and Forecasting. (3:3:0) W Prerequisite: Stat 336.
Data mining, univariate ARIMA time series theory and application, seasonal models, spatial correlation models, conditional heteroscedastic models in financial time series, case studies.

470. Statistical Theory for Actuaries. (3:3:0) F Prerequisite: Math 214.
Probability theory: discrete, continuous, mixture random variables; loss distributions; moment-generating functions; conditional probability, expectation; total probability; stochastic independence; transformations. Prepares for Exam P.

472. Actuarial Problems. (1:2:0) W, Sp Prerequisite: Stat 470 or concurrent enrollment.
Applying mathematical statistics in actuarial science. Prepares for Exam P.

474. Life Contingencies 1. (3:3:0) F Prerequisite: Stat 470 or concurrent enrollment.
Theory of interest, annuities, amortization, life tables, life annuities. Prepares for Exam FM.

475. Life Contingencies 2. (3:3:0) W Prerequisite: Stat 474.
Contingent annuities, joint annuities, insurance, calculating premiums and reserves. Prepares for Exam M.

496R. Academic Internship: Statistics. (0.5–9:Arr:Arr ea.) F, W, Sp, Su Prerequisite: department coordinator's consent.
On-the-job experience or internships for undergraduates. Report is required.

497R. Introduction to Statistical Research. (0.5–3:0:6 ea.) F, W, Sp, Su Prerequisite: department chair's consent.
Review of current literature and survey of present status of significant statistical research; collaborative work between student and faculty.

499R. Honors Thesis. (0.5–6:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: departmental consent.

500-Level Graduate Courses (available to advanced undergraduates)

510. Introduction to Statistics for Graduate Students. (3:3:1) F, W, Sp, Su Prerequisite: Math 97 or equivalent. Recommended: Math 110 or equivalent.
Introductory statistics course for graduate students outside Statistics Department. Topics include probability, estimation, hypothesis tests, simple linear regression, analysis of variance.

511. Statistical Methods for Research 1. (3:3:2) F, W, Sp Prerequisite: Stat 510 or equivalent.
Basic statistical methodologies and experimental design. Topics include analysis of variance, multiple regression, analysis of covariance, common experimental designs.

512. Statistical Methods for Research 2. (3:3:2) W, Su Prerequisite: Stat 511.
Advanced statistical methodologies. Topics include repeated measures models, basic multivariate techniques, logistic regression, log-linear models.

525. Statistical Inference. (3:3:0) F Prerequisite: Stat 442 or equivalent.
Exponential families, likelihood theory, maximum likelihood estimation, likelihood ratio tests, small and large sample tests.

532. Quality Improvement for Engineering. (3:3:2) F Prerequisite: Stat 332, Math 113.
Selected topics in statistical theory, analysis of variance, simple and multiple regression, response surface design and analysis, multilevel experimental designs, blocking designs, confounding.

535. Applied Linear Models. (3:3:0) F Prerequisite: departmental consent.
Analysis of full-rank model, over-parameterized model, cell-means model, unequal subclass frequencies, and missing and fused cells. Estimability issues, diagnostics.

536. Modern Regression Methods. (3:3:0) W Prerequisite: Stat 535, 624; or departmental consent.
Weighted least squares, measurement error models, robust regression, nonlinear regression, local regression, generalized additive models, tree-structured regression.

537. Generalized Linear Models. (3:3:0) W Prerequisite: Stat 535, 642; or equivalents.
Generalized linear models framework, binary data, polytomous data, log-linear models.

538. Survival Analysis. (3:3:0) W Prerequisite: Stat 441 or equivalent.
Basic concepts of survival analysis; hazard functions; types of censoring; Kaplan-Meier estimates; Logrank tests; proportional hazard models; examples drawn from clinical and epidemiological literature.

545. Stochastic Processes. (3:3:0) W Prerequisite: Stat 441 or 470 or equivalent.
Conditional expectation and probabilities; Markov chains; solutions using time-reversible chains; modeling using hidden Markov chains; exponential waiting times; Poisson processes; Brownian motion with approximations.

590. Statistical Consulting. (3:3:0) W Prerequisite: departmental consent.
Introduction to statistical consulting, oral presentations, presentation packages, written reports. Extensive applied experience in the Center for Collaborative Research and Statistical Consulting.

591R. Graduate Seminar in Statistics. (0:1:0 ea.) F, W

595R. Special Topics in Statistics. (1–3:Arr.:0 ea.) On dem. Prerequisite: instructor's consent.

599R. Academic Internship: Statistics. (1–9:0:Arr. ea.) F, W, Sp, Su Prerequisite: departmental consent.
On-the-job experience. Report required.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Statistics Faculty

Professors

Collings, Bruce J. (1988) BS, MS, MS, Brigham Young U., 1973, 1975, 1977; MS, PhD, U. of North Carolina, 1980, 1981; ASA, Society of Actuaries, 1994.

Fellingham, Gilbert W. (1990) BA, Occidental Coll., 1971; MS, MS, Brigham Young U., 1976, 1977; MS, PhD, U. of Washington, 1988, 1990.

Grimshaw, Scott D. (1993) BS, Southern Utah State Coll., 1983; MS, PhD, Texas A&M U., 1985, 1989.

Lawson, John S. (1986) AA, Los Angeles Valley Coll., 1967; BS, MS, Brigham Young U., 1969, 1971; MS, Rutgers U., 1976; PhD, Polytechnic Inst. of New York, 1983.

Schaalje, G. Bruce (1992) BS, MS, Brigham Young U., 1977, 1979; MS, U. of Washington, 1981; PhD, North Carolina State U., 1988.

Scott, Del T. (1977) BS, MS, Brigham Young U., 1970, 1973; PhD, Pennsylvania State U., 1977.

Tolley, H. Dennis (1983) BS, Brigham Young U., 1970; PhD, U. of North Carolina, 1974; ASA, Society of Actuaries, 1981.

Associate Professors

Christensen, William F. (2001) BS, MS, Brigham Young U., 1994, 1995; PhD, Iowa State U., 1999.

Reese, C. Shane (2001) BS, MS, Brigham Young U., 1994, 1995; PhD, Texas A&M U., 1999.

Whiting, David G. (1998) BA, MS, Brigham Young U., 1988, 1990; PhD, Texas A&M U., 1995.

Associate Research Professor

Eggett, Dennis L. (1997) BS, MS, Brigham Young U., 1981, 1983; PhD, North Carolina State U., 1987.

Associate Teaching Professors

Fields, Paul J. (2003) BS, ME, MBA, Brigham Young U., 1975, 1975, 1980; PhD, Pennsylvania State U., 1992.

Nielsen, P. Lynne (2000) BS, U. of Philippines, 1973; MS, Brigham Young U., 1984.

Assistant Professor

Blades, Natalie J. (2006) AB, Wellesley Coll., 1997; MSE, PhD, Johns Hopkins U., 2002, 2003.

Assistant Teaching Professor

Collings, Patti Burton (1988) BS, MS, Brigham Young U., 1971, 1977.

Adjunct Assistant Professor

Snow, Gregory L. (2000) BS, MS, Brigham Young U., 1992, 1994; PhD, U. of Washington, 2000.

Emeriti

Adams, L. LaMar (1970) BS, MEd, PhD, Brigham Young U., 1961, 1965, 1972.

Beus, Gary B. (1967) BA, Brigham Young U., 1962; MS, PhD, Virginia Polytechnic Inst., 1965, 1968.

Bryce, Gale Rex (1972) AA, Phoenix Coll., 1963; BS, Arizona State U., 1967; MS, Brigham Young U., 1970; PhD, U. of Kentucky, 1974.

Campbell, L. Howard (1962) BS, MBA, U. of Utah, 1955, 1957.

Carter, Melvin W. (1961) BS, Arizona State Coll., 1953; MS, PhD, North Carolina State U., 1954, 1956.

Christensen, Howard B. (1967) BS, Brigham Young U., 1964; MS, PhD, North Carolina State U., 1966, 1975.

Hendrix, Leland J. (1967) BS, MA, PhD, Brigham Young U., 1960, 1966, 1967.

Hilton, H. Gill (1962) BS, Brigham Young U., 1957; MS,PhD, North Carolina State U., 1960, 1962.

Larsen, Wayne A. (1998) BS, Brigham Young U., 1961; PhD, Virginia Polytechnic Inst. and State U., 1967.

Nielson, Howard C. (1957) BS, U. of Utah, 1947; MS, U. of Oregon, 1949; MBA, PhD, Stanford U., 1956, 1957.

Rencher, Alvin C. (1963) BS, MA, Brigham Young U., 1959, 1962; PhD, Virginia Polytechnic Inst., 1968.

Richards, Dale O. (1963) BS, Utah State U., 1950; MS, PhD, Iowa State U. of Science and Technology, 1957, 1963.

Student Development

Ronald K. Chapman, Chair
2514 WSC, (801) 422-4007

University Advisement Center
2500 WSC, (801) 422-3826

The Discipline

The Student Development Department provides course work designed to help students in the areas of intellectual/learning, career, and personal/social development.

The Career and Learning Information Center, 2590 WSC, contains detailed, current information about numerous occupations, college majors, educational programs, professional licensing requirements for various states, placement information about recent BYU graduates, and career skills information, such as job interviewing.

Student Development (StDev)

Undergraduate Courses

100. Essential College Skills. (1:1:0) F, W, Sp, Su
Developing essential college skills. Aims of BYU, values and goals, sound thinking skills. Learning styles and adjustment to college courses. College requirements and planning.

110. Effective Study and Learning. (2:2:0) F, W, Sp Su
Independent Study also.
Learning to learn: motivation, time management, reading, listening, notetaking, test preparation, and memorizing; cognitive and ethical development in a learning environment.

115. Life Planning and Decision Making. (2:2:0) F, W, Sp, Su
Independent Study also.
Individual development in life planning and decision making, emphasizing personal maturity, goal setting, and decision making abilities in areas of common concern to young adults.

117. Career Exploration. (2:2:0) F, W, Sp, Su
Applying theories of individual, academic, and career development to the university student. Exploring university opportunities and college majors; graduation planning.

120. Individual Development. (2:2:0) F, W
Applying theories of young adult development in a self-assessment approach to achieving individual development in the life challenges facing college students.

132. Introduction to Tutoring. (1:1:0) F, W
Developing college-level tutoring skills; academic success and the tutoring cycle. Leads to level-one tutoring certification of the College Reading and Learning Association.

133. Advanced Tutoring. (1:1:0) F, W Prerequisite: StDev 132.
Developing advanced-level tutoring approaches and analytical thinking. Leads to level-two tutoring certification of the College Reading and Learning Association.

139. Introduction to Health Professions. (1:1:0) F, W
Overview of health professions: medical, dental, and other specialties. Primary focus on guest lectures from various practitioners and clinicians.

158R. Leadership in a Learning Community. (1–2:Arr.:0 ea.) F, W
Community development and learning principles.

198R. Prelaw Seminar. (1:1:0 ea.) F, W
Choices in majors and prelegal education; the work of lawyers, judges, and others in legal careers; role of law in our communities.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su Prerequisite: department internship coordinator's consent.
Work experience evaluated by supervisor and faculty mentor and posted on transcript.

214R. Special Topics in Student Development. (1–3:1:0 ea.)
On dem.

227. Preview of Optometry. (1:1:0) F, W
Preview of optometry with lectures by optometrists; overview of required courses; application process; recommended extracurricular opportunities.

229. Preview of Dentistry. (1:1:0) F, W
Preview of dentistry with lectures by dentists; overview of required courses; application process; recommended extracurricular opportunities.

239. Preview of Medicine. (1:1:0) F, W
Preview of medical practice with lectures by doctors; overview of required courses; application process; recommended extracurricular opportunities.

317R. Career Strategies. (1–2:Arr.:0 ea.) F, W
Preparing for career or graduate school/employment opportunities. Practical strategies to facilitate internship, job, or graduate school preparation: résumés, letters, interviewing, and Internet research.

329. Dental School Preparation Laboratory Experience. (2:0:2) F, W
Dental laboratory practices; tooth terminology, morphology, and anatomy. Procedures including oral pathology, diagnosis, and X-rays.

358R. Student Leadership Development. (1–3:2:2 ea.) F, W
Prerequisite: instructor's consent.
Analysis, synthesis, and integration of personal leadership experienced in an academic context. Successful leadership: decision making, communications, planning, team building, motivation, and interpersonal skills.

399R. Health Professions Internship. (1–3:Arr.:Arr. ea.) F, W
Internships with health care providers.

439. Medical and Dental School Application. (2:2:0) F, W
Preparation for medical and dental school applications; entire application process, including school identification and submission.

490. Bachelor of General Studies Capstone. (2:2:0) F, W, Sp, Su
Independent Study only. Prerequisite: StDev 100; completion of all other BGS program requirements.
Culminating course required for bachelor of general studies degree: analyze and evaluate BGS experience in light of Aims of a BYU Education and summarize this experience in a reflective paper; integrate material learned in emphasis by completing a scholarly essay; and demonstrate accomplishment of learning outcomes.

Student Development Faculty

Professors

Heaps, Richard A. (1970) BS, Brigham Young U., 1966; MA, PhD, U. of Utah, 1968, 1970.
Scharman, Janet S. (1992) BA, MS, PhD, U. of Utah, 1970, 1990, 1992.
Ward, G. Robert (1981) BS, MS, Utah State U., 1959, 1961; PhD, Michigan State U., 1965.

Clinical Professors

Bell, Douglas J. (1972) BS, Brigham Young U., 1970; MBA, U. of Utah, 1971; PhD, Brigham Young U., 1984.
Bennion, Lynne A. (1993) BS, Brigham Young U., 1981; MS, PhD, Purdue U., 1983, 1986.
Chapman, Ronald K. (1997) BS, PhD, Brigham Young U., 1975, 1983.
Gleave, Robert L. (1989) BS, MEd, PhD, Brigham Young U., 1975, 1976, 1981.
Isakson, Richard L. (1983) BA, Weber State U., 1970; MS, Bucknell U., 1971; PhD, Cornell U., 1975.
Lawson, Jane M. (1997) BA, Webster U., 1962; PhD, U. of Minnesota, 1980.

MacArthur, James D. (1973) BA, MA, PhD, Brigham Young U., 1969, 1973, 1976.
Maughan, Michael L. (1972) BS, MS, EdD, Utah State U., 1966, 1968, 1970.
Nielsen, Stevan L. (1988) BS, Brigham Young U., 1976; PhD, U. of Washington, 1984.
Shively, Ann Pye (1991) BMEd, Sam Houston State U., 1958; MEd, PhD, Texas A & M U., 1966, 1971.
Smart, David (1992) BA, Brigham Young U., 1964; MA, PhD, U. of Utah, 1967, 1969.
Smith, Steven A. (1992) BS, MEd, Brigham Young U., 1981; PhD, U. of Minnesota, 1988.
Williams, Marleen S. (1993) BS, PhD, Brigham Young U., 1987, 1993.
Worthen, Vaughn E. (1991) AA, Ricks College, 1980; BS, MEd, Brigham Young U., 1983, 1985; PhD, U. of Kansas, 1993.

Associate Clinical Professors
Beecher, Mark E. (2002) BS, Brigham Young U., 1993; MSW, U. of Utah, 1995; PhD, Brigham Young U., 1998.
Buxton, Michael S. (1999) BS, Brigham Young U., 1985; MS, PhD, U. of Georgia, 1989, 1993.
Dougher, Kirk M. (1999) BA, Utah State U., 1990; PhD, U. of Nevada, Reno, 1999.
Esplin, Patricia B. (1993) BS, Brigham Young U., 1966; MS, PhD, U. of Utah, 1976.
Moody, Richard A. (1997) BS, Brigham Young U., 1984; MS, Kansas State U., 1991; PsyD, Central Michigan U., 1996.
Morrell, Barbara (1997) BS, MEd, PhD, Brigham Young U., 1982, 1985, 1997.
Preece, Julie E. (1999) BS, MEd, PhD, Brigham Young U., 1985, 1988, 1994.
Rice, L. Maureen (1998) BS, MA, PhD, Brigham Young U., 1977, 1980, 1997.
Roberts, Norman L. (2001) BA, Brigham Young U., 1973; MS, U. of Utah, 1981; PhD, Brigham Young U., 1994.

Assistant Clinical Professors
Hansen, Kristin L. (2006) BSc, McGill U., 1992; MA, PhD, Loyola U., Chicago, 1996, 2000.
Leavitt, Lisa M. (2006) BS, U. of Utah, 1999; MS, PhD, Brigham Young U., 2001, 2005.
Nielsen, Dianne L. (2001) BS, PhD, Brigham Young U., 1977, 2001.
Okiishi, John C. (2000) BS, PhD, Brigham Young U., 1995, 2000.
Pedersen, Tyler R. (2001) BS, Brigham Young U., 1994; MS, PhD, U. of Florida, 1998, 2000.

Emeriti
Bekker, Demoyne (1990) BA, MA, Brigham Young U., 1961, 1962; PhD, Ohio State U., 1968.
Herlin, Wayne R. (1964) BA, U. of Utah, 1953; MA, Stanford U., 1956; PhD, U. of Utah, 1963.
Sorenson, David M. (1969) BA, Brigham Young U., 1961; EdM, EdD, Harvard U., 1962, 1970.

Study Abroad

See International and Area Studies.

Swahili

See Center for Language Studies.

Swedish

See Department of Humanities, Classics, and Comparative Literature.

Tagalog

See Center for Language Studies.

Tahitian

See Center for Language Studies.

Taiwanese

See Center for Language Studies.

Teacher Education

M. Winston Egan, Chair
205 MCKB

David O. McKay School of Education Advisement and Certification Office
120 MCKB, (801) 422-3426

Admission to Degree Program

The degree programs in this department carry special enrollment limitations. Please see the college advisement center for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Early Childhood Education
BS Elementary Education
Emphasis (optional):
Early Childhood Education
BS Social Science (composite teaching major)

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA Teacher Education
MEd Teacher Education

For more information see the BYU 2007–2008 Graduate Catalog

Additional Endorsements/Licensures

Elementary Education with TESOL or Early Childhood Education with TESOL

See the Education Advisement and Certification Office for further information.

Elementary Music Education–Elementary Education Dual Licensure

See the College of Fine Arts and Communications Advisement Center (D-444 HFAC) for music programs and course listings and the Education Advisement and Certification Office for the education program.

Early Childhood Education

Admission to Degree Program

Students are accepted into the early childhood education (ECE) teacher preparation program by application only. The application review process includes but is not limited to the following:

1. Completion of the ECE exploratory experience. The instruction packet and logsheet is available online at http://education.byu.edu/ted/early_childhood.html.
2. Controlled writing sample (reflective questions).
3. Group interview.
4. Successful completion of the following core and preprofessional courses: MFHD 210, 221, 240.
5. Be fingerprinted. Check with Education Advisement and Certification Office (120 MCKB) for instructions.
6. A university cumulative GPA of 2.85 or higher.
7. If admitted, departmental approval is required for deferment from the four-semester professional sequence.

To conform to the requirements for professional accreditation and licensure, the early childhood education degree program must limit enrollment. Therefore, not everyone who applies will be automatically accepted. Check with the Education Advisement and Certification Office, 120 MCKB, for application due dates. A maximum of two applications will be considered for any individual.

Fingerprint and Background Check

All candidates for teacher licensure are required by state statute to be fingerprinted and pass an FBI background check before participating in required field experiences. Fingerprint clinics are held in the McKay Building in November and March. Allow from five to six weeks for fingerprints to be processed. FBI background clearance is valid for only three years. If clearance expires before graduation, candidates must repeat the fingerprinting and clearance process, including a new fee payment.

Failing to expunge a police record prior to the background check may result in a blocked registration while a panel reviews the charges. Candidates who cannot pass an FBI background check will be removed from the teacher education licensure program.

Additional Licensing Requirements

It is the student's responsibility to be sure that the Praxis test has been taken and that BYU has received the test scores, that their fingerprint background clearance is current and that state licensing fees have been paid prior to graduation. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements contact the Education Advisement and Certification Center, 120 MCKB, (801) 422-3426. Graduation and Utah licensure cannot be processed until these requirements have been completed.

The Discipline

Early childhood education prepares teachers who, having gained their own liberal education, help preschool, kindergarten, and primary-grade children learn by improving the teaching children receive in the home, school, church, and community. Early childhood education helps students enhance their thinking abilities, build their confidence in exploring new ideas, and become self-motivated, independent learners.

In the program prospective teachers learn about the culture of young children, develop a solid foundation in basic principles of teaching and learning that originate in developmental theory and research, and become proficient in appropriately implementing those basic principles in practical settings.

Career Opportunities

A degree in early childhood education leads to licensure in kindergarten through grade three. The kindergarten endorsement can only be obtained as part of the Early Childhood License. Students in this major are licensed to teach kindergarten through primary grades in the public schools. See the advisement center for details.

BS Early Childhood Education (61–68 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. No credit lower than C– is allowed in major or supporting courses.
2. Complete the following preprofessional courses prior to or concurrent with application for admission to the program:
   MFHD 210, 221, 240.

   Note: It is highly recommended to take MFHD 222 prior to admission.
3. Complete the ECE Exploratory Experience before applying for admission to the program.
4. Complete an application seminar (seminar schedule posted on the Education Advisement and Certification Office Web page and in 120 MCKB).
5. Complete the following :
   MFHD 222, 351, 355.

   Note: MFHD 222 must be taken before or concurrently with ECE 323.
6. Complete one course from the following:
   MFHD 331, 352, 420.
7. Complete the following professional courses (prior acceptance to the major required):
   CPSE 400.
   ECE 323, 353.
   El Ed 340, 351.
   IP&T 287.
   Music 378.
8. Complete one course from the following:
   Dance 326.
   TMA 352.
   VAEdu 326.
9. Complete the following professional sequence cohort courses:
   ECE 324, 325, 327, 356, 361, 363, 365.
10. Complete 6 or 12 hours from one of the following:
    Either ECE 425 (6 hours)
    Or El Ed 496R (12 hours).
11. Complete one course from the following:
    ECE 423, 424.
12. Complete the following concurrently with ECE 423 or 424 above:
    ECE 426.

Recommended Courses

Engl 313.
HEPE 129.
MthEd 305, 306.

*Hours include courses that may fulfill university core requirements.

Early Childhood Education (ECE)

Undergraduate Courses

320. Teaching the Creative Arts: Birth Through Kindergarten. (3:3:0) F Prerequisite: admittance to ECE major.
Implementing integrated learning experiences in dance, music, drama, and visual art for the very young, including importance of home, family, and environments on child's aesthetic growth.

321. Teaching the Creative Arts: Grades One Through Three. (3:3:0) W Prerequisite: admittance to ECE major.
Implementing integrated learning experiences in dance, music, drama, and visual art in primary grades, focusing on natural creative expression and nurturing creative impulses in classroom.

323. Integrated Curriculum in Programs for Young Children. (2:2:0) Prerequisite: MFHD 221, 222; admittance to either ECE or El Ed licensing programs. Dual majors, please see advisor.
Methods in planning and implementing an integrated curriculum using projects and thematic units developmentally appropriate for children's learning.

324. Planning and Management. (2:2:0) F, W Prerequisite: admittance to ECE program.
Learning principles, lesson planning, classroom atmosphere, classroom management, professional attitudes and practices.

325. Early Childhood Practicum. (2:0:12) F, W Prerequisite: admittance to ECE program.
Practicum experience in the primary grades. Field experience designed to give students opportunities to interact with primary children (grades 1–3) and apply skills and knowledge acquired in the ECE cohort classes.

327. Assessment and Action Research in Early Childhood Programs. (2:2:0) Prerequisite: admittance to ECE cohort.
Formal and informal assessment strategies and data collection procedures for evaluating children's progress; programs to enhance learning, individualize instruction, and communicate with others.

353. Emergent Literacy. (2:2:0) F, W Prerequisite: MFHD 355 or equivalent.
Issues, themes, and practices of literacy instruction for young children (P–3).

356. Teaching Reading and Language Arts in the Primary Grades. (2:2:0) F, W Prerequisite: major status.
Issues, theories, and practices of literacy instruction for primary grades, including developing literacy through listening, speaking, reading, and writing.

361. Teaching Mathematics in the Elementary School. (2:2:0) F, W Prerequisite: major status.
Methods and materials for teaching elementary school mathematics guided by current principles of curriculum, instruction, and assessment in mathematics education.

363. Teaching Science in the Elementary School. (2:2:0) F, W, Sp, Su Prerequisite: major status; departmental approval.
Developing knowledge, skills, and attitudes related to teaching science in the elementary school.

365. Teaching Social Studies for Cultural Understanding. (2:2:0) Prerequisite: admittance to ECE cohort.
Developing and implementing meaningful integrated learning experiences in the social studies area, taking into account children's home experience and cultural values.

423. Preschool Student Teaching/Internship (6:0:6) F, W, Su Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.
Student teaching/interning experience in the preschool. Fee.

424. Kindergarten Student Teaching/Internship. (6:0:6) F, W, Sp Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.
Student teaching/interning experience in the kindergarten. Fee.

425. Grades 1–3 Student Teaching/Internship. (6:0:6) F, W, Sp Prerequisite: all ECE core and professional sequence courses; concurrent enrollment in ECE 426; prior application.
Student teaching/interning experience in the primary grades. Fee.

426. Capstone Seminar. (1:1:0) F, W, Sp, Su Prerequisite: concurrent enrollment with student teaching practicum.
Gaining insight into significant issues in early childhood education, developing a sense of professional ethics, and becoming personally committed to ongoing professional development.

Elementary Education

Admission to Degree Program

Students are accepted into the elementary education teacher preparation program by application only. Students must attend an application meeting held by the Education Advisement and Certification Office prior to making application for admission.

The application review process includes but is not limited to the following:

1. Significant experience working with elementary-age children.
2. Controlled writing sample (reflective questions).
3. Group interview.
4. University cumulative GPA of 2.85 or higher.
5. Being fingerprinted. See Education Advisement and Certification Office (120 MCKB) for instructions.
6. If admitted, departmental approval only for deferment from the four-semester professional sequence.

The degree programs in elementary education carry enrollment limitations. A maximum of two applications will be considered for any individual.

Fingerprint and Background Check

All candidates for teacher licensure are required by state statute to be fingerprinted and pass an FBI background check before participating in required field experiences. Fingerprint clinics are held in the McKay Building in November and March. Allow from five to six weeks for fingerprints to be processed. FBI background clearance is valid for only three years. If clearance expires before graduation, candidates must repeat the fingerprinting and clearance process, including a new fee payment.

Failing to expunge a police record prior to the background check may result in a blocked registration while a panel reviews the charges. Candidates who cannot pass an FBI background check will be removed from the teacher education licensure program.

Additional Licensing Requirements

It is the student's responsibility to be sure that the Praxis test has been taken and that BYU has received the test scores, that their fingerprint background clearance is current and that state licensing fees have been paid prior to graduation. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements contact the Education Advisement and Certification Center, 120 MCKB, (801) 422-3426. Graduation and Utah licensure cannot be processed until these requirements have been completed.

The Discipline

Elementary education prepares teachers who, having gained their own liberal education, help elementary school children learn by improving the teaching children receive in the home, school, church, and community. Elementary education helps students enhance their thinking abilities, build their confidence in exploring new ideas, and become self-motivated, independent learners.

In the program prospective teachers learn about the culture of the elementary school, develop a solid foundation in basic principles of teaching and learning that originate in educational theory and research, and become proficient in systematically applying those basic principles in practical settings.

Career Opportunities

A degree in elementary education leads to opportunities for teaching in elementary schools. By taking additional classes in early childhood education, secondary education, music, or teaching English to speakers of other languages (TESOL) students can extend their teaching credential to teach kindergarten, seventh and eighth grade, elementary music, or TESOL.

BS Elementary Education (68.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. Make formal application for admission to the program through the Teacher Education Department (201 MCKB).
2. Students who receive a grade lower than C– in any of the professional or support courses, or whose GPA drops below 2.85, will be discontinued from the elementary education program.
3. Complete all GE courses, including the following, prior to beginning program:
   ExSc 169.
   MFHD 210.
   Phy S 110A,B.
4. Complete an application seminar (seminar schedule posted on Education Advisement and Certification Office Web page and in 120 MCKB).
5. Complete the following preprofessional courses after admission to the program:
   Dance 326.
   ExSc 375.
   MthEd 305.
   Music 378.
   TMA 352.
   VAEdu 326.
6. Complete the following professional courses in cohorts (prior application and admission to program required):
   CPSE 400.
   EdLF 452.
   El Ed 302, 340, 351, 354, 355, 356, 357, 361, 362, 363, 365, 372.
   Hlth 361.
   IP&T 287, 301.
   MthEd 306.
7. Complete 12 hours of one of the following (prior application required):
   El Ed 400R, 496R.

Recommended Courses

The following courses are strongly recommended:
Biol 100 (InBio 101 lab also strongly recommended).
Engl 313.
Geog 120.
InBio 101, 134.

*Hours include courses that may fulfill university core requirements.

BS Elementary Education: Early Childhood Education Emphasis (83.5–90.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

Major Requirements

1. Make formal application for admission to the program through the Teacher Education Department (201 MCKB).
2. Students who receive a grade lower than C– in any of the professional or support courses, or whose GPA drops below 2.85, will be discontinued from the elementary education/early childhood program.
3. Complete the ECE exploratory experience before applying for admission to the program.
4. Complete all GE courses, including the following, prior to beginning program:
   ExSc 169.
   MFHD 210, 221, 222, 240.
   Phy S 110A,B.
5. Complete an application seminar (seminar schedule posted on Education Advisement and Certification Office Web page and in 120 MCKB).
6. Complete the following courses:
   ECE 323 (prior admittance to program required).
   MFHD 355.
7. Complete one course from the following:
   MFHD 331, 351, 352, 420.

   Note: It is recommended that all early childhood education emphasis courses be taken prior to cohort 1 in the elementary education program.
8. Complete the following preprofessional courses after admission to the program:
   Dance 326.
   ExSc 375.
   MthEd 305.
   Music 378.
   TMA 352.
   VAEdu 326.
9. Complete the following professional courses in cohorts (prior application required):
   CPSE 400.
   EdLF 452.
   El Ed 302, 340, 351, 354, 355, 356, 357, 361, 362, 363, 365, 372.
   Hlth 361.
   IP&T 287, 301.
   MthEd 306.
10. Complete one course from the following:
    El Ed 400R (6 hours) or 496R (12 hours).
11. Complete one course from the following:
    ECE 423, 424.
12. Complete the following concurrently with ECE 423 or 424 above:
    ECE 426.

Recommended Courses

The following courses are strongly recommended. All can fill GE requirements:

Biol 100 (InBio 101 lab also strongly recommended).
Engl 313.
Geog 120.
InBio 101, 134.

*Hours include courses that may fulfill university core requirements.

Elementary Education (El Ed)

Undergraduate Courses

302. Planning and Management. (2:2:0) F, W Prerequisite: admittance to elementary education program.
Learning principles, lesson planning, classroom atmosphere, classroom management, professional attitudes and practices.

340. Children's Literature. (2:2:0) F, W, Sp Prerequisite: some sections require acceptance to professional program.
Trends and titles in children's and adolescent literature. Reading and critiquing as well as practical uses of children's literature in both school and home.

351. Multicultural Education. (2:2:0) F, W, Sp Prerequisite: major status.
Cultural issues related to public education that promote constructive interaction among people of differing economic, social, racial, ethnic, and religious backgrounds.

354. Assessing and Supporting Literacy Development: Practicum 1. (1:0:2) F, W Prerequisite: major status; concurrent enrollment in El Ed 356.
Applying reading and writing assessment and instructional strategies in the primary grades.

355. Assessing and Supporting Literacy Development: Practicum 2. (1:0:2) F, W Prerequisite: major status; concurrent enrollment in El Ed 357.
Applying reading and writing assessment and instructional strategies in grades three to six.

356. Teaching Reading and Language Arts in the Primary Grades. (2:2:0) F, W Prerequisite: major status; concurrent enrollment in El Ed 354.
Issues, theories, and practices of literacy instruction for primary grades, including developing literacy through listening, speaking, reading, and writing.

357. Teaching Reading and Language Arts in the Intermediate Grades. (2:2:0) F, W Prerequisite: major status; concurrent enrollment in El Ed 355.
Issues and practices for teaching language arts in grades three to six, including content area reading and writing, literature, comprehending and responding, vocabulary development, and structural analysis applications.

361. Teaching Mathematics in the Elementary School. (2:2:0) F, W Prerequisite: major status; MthEd 305, 306; concurrent enrollment in El Ed 362.
Methods and materials for teaching elementary school mathematics guided by current principles of curriculum, instruction, and assessment in mathematics education.

362. Practicum in Teaching Mathematics. (1:0:2) F, W Prerequisite: major status; MthEd 305, 306; concurrent enrollment in El Ed 361.
Applying content and methods learned in El Ed 361 in an elementary school classroom. Fee.

363. Teaching Science in the Elementary School. (2:2:0) F, W Prerequisite: major status; departmental approval.
Developing knowledge, skills, and attitudes related to teaching science in the elementary school.

364. Practicum in Teaching Science. (0.5:0:1) F, W Prerequisite: departmental approval; concurrent enrollment in El Ed 363.
Field experience designed to give students opportunities to interact with elementary school students and apply skills and knowledge developed in El Ed 363.

365. Teaching Social Studies in the Elementary School. (2:2:0) F, W Prerequisite: major status.
Developing instructional methods and curriculum design to initiate and maintain effective learning in social studies classrooms.

366. Social Studies Practicum. (0.5:0:1) F, W Prerequisite: concurrent enrollment in El Ed 365.

Practicing strategies in instruction and curriculum to initiate and maintain effective learning in social studies classrooms.

372. Instruction and Assessment. (2:2:0) F, W Prerequisite: admittance to elementary education program.

Taken during second professional semester. Extended planning, integrated units, teaching strategies, management problems, and assessment and reporting of student progress.

400R. Elementary Student-Teaching Internship. (1–12:Arr.:Arr. ea.) F, W Prerequisite: three-semester professional sequence and prior application. See Education Advisement and Certification Office for application dates.

Semester-long or two-consecutive-term, full-day student-teaching internship in the public schools. Seminar attendance required. Fee.

450. Foundations for Bilingual/ESL Education. (2:2:0) F, W

Identifying and assessing legal, linguistic, cultural, community, and familial issues affecting access of Limited English Proficient (LEP) student populations to education.

477R. Practicum in Bilingual/ESL Education. (4:0:Arr. ea.) F, W, Sp, Su Prerequisite: Sc Ed–El Ed 450, Ling 440, 460, 472, 476, FamLf 305.

Practicum in teaching English to second-language learners. Can be taken concurrently with student teaching/internship in a diverse-language setting.

493R. Independent Readings or Project. (1–4:0:3 ea.) F, W, Sp, Su Prerequisite: departmental approval.

496R. Academic Internship. (8–12:Arr.:Arr. ea.) F Prerequisite: three-semester professional sequence and prior application. See Education Advisement and Certification Office for application dates.

A full-year classroom teaching internship in the public schools in lieu of El Ed 400, student teaching. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

514R. Special Topics in Education. (1–3:Arr.:Arr. ea.) On dem. These courses do not count toward a graduate degree.

—Children's Literature
—Classroom Management
—Environmental Education
—Foundations of Reading
—Increasing Teaching Effectiveness
—Individualized Instruction
—Language Development and Reading
—Mathematics
—Reading
—Reading in the Content Areas
—Science
—Social Studies
—Writing in Elementary Education
—Writing Instruction

515R. Special Topics in Education. (1–3:Arr.:0 ea.) On dem. These courses do not count toward a graduate degree without prior approval.

—Analysis of Teaching and Learning
—Children's Literature
—Classroom Management
—Comprehension Instruction
—Content-Area Literacy
—Curriculum Innovations
—Early Childhood Education
—Effective Teaching
—Evaluating Student Learning
—Foundations of Literacy
—Home-School Relations
—K–6 Mathematics Content and Selected Topics (TBA)
—K–6 Mathematics Content and Selected Topics from Algebra and Geometry
—K–6 Mathematics Content and Selected Topics from Rational Number
—Literacy Assessment and Intervention
—Literacy Development and Instruction
—Literature for Young People
—Mathematical Pedagogy Focused on the Elementary Learner
—Mathematics
—Multicultural Education
—New Perspectives on the Elementary Learner
—Technology for Enriching Elementary Mathematics Instruction
—Utah State Mathematics Core Curriculum
—Writing Instruction

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Secondary Education

Fingerprint and Background Check

All candidates for teacher licensure are required by state statute to be fingerprinted and pass an FBI background check before participating in required field experiences. Fingerprint clinics are held in the McKay Building in November and March. Allow from five to six weeks for fingerprints to be processed. FBI background clearance is valid for only three years. If clearance expires before graduation, candidates must repeat the fingerprinting and clearance process, including a new fee payment.

Failing to expunge a police record prior to the background check may result in a blocked registration while a panel reviews the charges. Candidates who cannot pass an FBI background check will be removed from the teacher education licensure program.

Additional Licensing Requirements

It is the student's responsibility to be sure that the Praxis test has been taken and that BYU has received the test scores, that their fingerprint background clearance is current and that state licensing fees have been paid prior to graduation. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements contact the Education Advisement and Certification Center, 120 MCKB, (801) 422-3426. Graduation and Utah licensure cannot be processed until these requirements have been completed.

The Discipline

The Department of Teacher Education provides a program that licenses secondary teachers for the public schools. In addition to content courses in the field(s) in which they plan to teach, students complete professional education courses and practicum experiences that prepare them to teach in a secondary school setting.

Career Opportunities

Secondary education teacher.

General Information

Teaching Majors, Minors and Composites

Students wishing to certify as secondary teachers select one of the following options in addition to the professional education sequence. For specific requirements, see the department listing for the teaching major or minor.

Option 1a: Teaching Major
The following subjects *do not require* a teaching minor, although a teaching minor is recommended.

- Chemistry Education (79.5 hours)
- Dance Education (75–78 hours)
- English Teaching (74–91 hours)
- History Teaching (67–84 hours)
- Mathematics Education (74 hours)
- Physical Education Teaching/Coaching (K–12) (76–77 hours)
- Physics Teaching (74.5–75.5 hours)
- Theatre Arts Education (71 hours)

Option 1b: Teaching Major and Approved Teaching Minor
The following subjects *require* an approved teaching minor.

- French Teaching (70–93 hours)
- Geography Teaching (87–93 hours)
- German Teaching (76–100 hours)
- Spanish Teaching (75–108 hours)

Approved Teaching Minors for Options 1a and 1b Teaching Majors:

- Art Education (21 hours)
- Chemistry Education (15–18 hours)
- Chinese Teaching (26–42 hours) (see Department of Asian and Near Eastern Languages)
- Coaching and Teaching Physical Education (23.5–27.5 hours)
- Computer Science Teaching (17–18 hours)
- Driver Safety Education (16 hours) (see Department of Health Science)
- English Teaching (27 hours)
- French Teaching (24–39 hours)
- Geography Teaching (18 hours)
- Geology Teaching (16 hours)
- German Teaching (17–36 hours)
- Health Education (23 hours)
- History Teaching (21 hours)
- Japanese Teaching (25–41 hours) (see Department of Asian and Near Eastern Languages)
- Latin Teaching (23–31 hours) (see Department of Humanities, Classics, and Comparative Literature)
- Mathematics Education (33 hours)
- Physics Teaching (26 hours)
- Political Science Teaching (21 hours)
- Psychology Teaching (21 hours)
- Russian Teaching (17–32 hours) (see Department of Germanic and Slavic Languages)
- Spanish Teaching (21–37 hours)
- Teaching English to Speakers of Other Languages (TESOL) K–12 (19 hours) (see Linguistics and English Language Department)
- Theatre Arts Education (33 hours)

Option 2: Restricted Teaching Major and Approved Teaching Minor
The following subjects *require* an approved teaching minor from a frequently taught academic area.

- Latin Teaching (78–91 hours) (see Department of Humanities, Classics, and Comparative Literature)
- School Health Education (74–79 hours)

Approved Teaching Minors for Option 2 Teaching Majors

- Art Education (21 hours)
- Chemistry Education (15–18 hours)
- Coaching and Teaching Physical Education (23.5–27.5 hours)
- Computer Science Teaching (17–18 hours)
- Driver Safety Education (16 hours) (see Department of Health Science)
- English Teaching (27 hours)
- French Teaching (24–39 hours)
- Geography Teaching (18 hours)
- German Teaching (17–36 hours)
- History Teaching (21 hours)
- Mathematics Education (33 hours)
- Physics Teaching (26 hours)
- Spanish Teaching (21–37 hours)
- Teaching English to Speakers of Other Languages (TESOL) K–12 (19 hours) (see Linguistics and English Language Department)
- Theatre Arts Education (33 hours)

Option 3: Composite Teaching Major
A teaching composite enables a student to complete a broader range of content area courses. However, a composite requires at least 46 hours in the teaching major, usually exceeding the 120 hours required for graduation. Teaching composite majors are available in the following subject areas:

- Art Education (K–12) (85 hours)
- Biology Composite Teaching (88 hours) (see Department of Integrative Biology)
- Earth and Space Science Education (83–86 hours) (see Department of Geological Sciences)
- Family and Consumer Science Education (87–90 hours) (see School of Family Life)
- Music Education: K–12 Choral Emphasis (87 hours)
- Music Education: K–12 Instrumental Emphasis (92 hours)
- Physical Science Composite Teaching (77.5–78.5 hours)
- Social Science Composite Teaching (76 hours) (see Department of Teacher Education)
- Technology Teacher Education (73–74 hours) (see School of Technology)

Teaching Majors

The following is a list of teaching majors and minors offered jointly with the Department of Teacher Education and other academic departments throughout the university. For specific major course requirements, see the department offering the teaching major or minor. For licensure requirements, refer to the above information.

Teaching Majors and Composite Teaching Majors

(Hours listed include courses taken to fill both major and licensure requirements.)

- Art Education (K–12) (85 hours)
- Biology Composite Teaching (88 hours) (see Department of Integrative Biology)
- Chemistry Education (79.5 hours)
- Dance Education (75–78 hours)
- Earth and Space Science Education (83–86 hours) (see Department of Geological Sciences)
- English Teaching (74–91 hours)
- Family and Consumer Science Education (87–90 hours) (see School of Family Life)
- French Teaching (70–93 hours)
- Geography Teaching (87–93 hours)
- German Teaching (76–100 hours)
- History Teaching (67–84 hours)
- Latin Teaching (78–91 hours) (see Department of Humanities, Classics, and Comparative Literature)
- Mathematics Education (74 hours)
- Music Education: K–12 Choral Emphasis (87 hours)
- Music Education: K–12 Instrumental Emphasis (92 hours)
- Physical Education Teaching/Coaching (K–12) (76–77 hours)
- Physical Science Composite Teaching (77.5–78.5 hours)
- Physics Teaching (74.5–75.5 hours)
- School Health Education (74–79 hours)

Social Science Composite Teaching (76 hours) (see Department of Teacher Education)
Spanish Teaching (75–108 hours)
Special Eduction: Mild/Moderate Disabilities Emphasis (55–56 hours)
Special Education: Severe Disabilities Emphasis (55–56 hours)
Technology Teacher Education (73–74 hours) (see School of Technology)
Theatre Arts Education (71 hours)

Teaching Minors

Art Education (21 hours)
Chemistry Education (15–18 hours)
Chinese Teaching (26–42 hours) (see Department of Asian and Near Eastern Languages)
Coaching and Teaching Physical Education (23.5–27.5 hours)
Computer Science Teaching (17–18 hours)
Driver Safety Education (16 hours) (see Department of Health Science)
English Teaching (27 hours)
French Teaching (24–39 hours)
Geography Teaching (18 hours)
Geology Teaching (16 hours)
German Teaching (17–36 hours)
Health Education (23 hours)
History Teaching (21 hours)
Japanese Teaching (25–41 hours) (see Department of Asian and Near Eastern Languages)
Latin Teaching (23–31 hours) (see Department of Humanities, Classics, and Comparative Literature)
Mathematics Education (33 hours)
Physics Teaching (26 hours)
Political Science Teaching (21 hours)
Psychology Teaching (21 hours)
Russian Teaching (17–32 hours) (see Department of Germanic and Slavic Languages)
Spanish Teaching (21–37 hours)
Teaching English to Speakers of Other Languages (TESOL) K–12 (19 hours) (see Department of Linguistics and English Language)
Theatre Arts Education (33 hours)

Professional Education Requirements

All teacher candidates in secondary education complete an approved sequence of required professional education courses. Please see the appropriate department listing for each teaching major.

Fingerprint and Background Check

All candidates for teacher licensure are required by state statute to be fingerprinted and pass an FBI background check before participating in required field experiences. Fingerprint clinics are held in the McKay Building in November and March. Allow from five to six weeks for fingerprints to be processed. FBI background clearance is valid for only three years. If clearance expires before graduation, candidates must repeat the fingerprinting and clearance process, including a new fee payment.

Failing to expunge a police record prior to the background check may result in a blocked registration while a panel reviews the charges. Candidates who cannot pass an FBI background check will be removed from the teacher education licensure program.

Additional Licensing Requirements

It is the student's responsibility to be sure that the Praxis test has been taken and that BYU has received the test scores, that their fingerprint background clearance is current and that state licensing fees have been paid prior to graduation. Students will also be responsible for any additional requirements imposed by the state prior to their graduation. To confirm the status of these requirements contact the Education Advisement and Certification Center, 120 MCKB, (801) 422-3426. Graduation and Utah licensure cannot be processed until these requirements have been completed.

Student Teaching Prerequisites

1. *Teaching Major.* Complete all teaching major requirements. Exceptions require a written appeal submitted to Field Services (120 MCKB).
2. *Teaching Within a Minor.* Students requesting to student teach in the area of a teaching minor must (1) complete all minor course work before student teaching and (2) obtain written permission from the Teacher Education Department and the teaching minor department.
3. *Professional Education Courses.* Complete CPSE 402, Sc Ed 276R, 350, 353, 378, 379, IP&T 286, and the appropriate 377R or 477 methods course with a C or higher.
4. *Application.* Apply for student teaching at the Education Advisement and Certification Office. Packets are available online at http://education.byu.edu/fieldservices/

Licensing Procedures

Students are responsible for keeping the Education Advisement and Certification Office informed of their progress toward licensure. If any changes are to be made in the licensing program outlined in this catalog, the student must prepare and circulate the necessary memoranda to obtain approval from both the academic major department and secondary education.

To avoid undue delay licensing, students are urged to arrange for a personal review of their Education Advisement and Certification Office file well in advance of registering for their final semester, because completion of graduation requirements does not necessarily mean that all licensing requirements have been met.

Teaching Composite Major Offered by the Department of Teacher Education

BS Teaching Social Science (76 hours*, including licensure hours)

This is a limited-enrollment program requiring a formal application and departmental admissions approval. Please see the college advisement center information regarding requirements for admission to this major.

Major Requirements

1. Complete the following with at least a B grade before applying to the program:
   Geog 101.
2. Complete 6 hours (with at least a B grade in each course) from the following before applying to the program. All courses are required.
   Hist 201, 202, 220, 221.

Note: Program applications are due January 15 for fall semester and September 15 for winter semester. Candidates must have an overall GPA of 2.85 or higher to apply. For additional requirements see the Education Advisement Center, 120 MCKB, or go online at http://education.byu.edu/ted/secondary_forms.html.

3. Complete the following:
   Hist 364 (must be completed before Sc Ed 476R/496R).
4. Complete one course from 300-level or above history courses.
5. Complete the following:
   Geog 130.
6. Complete one course from the following:
   Geog 250, 255, 260, 265, 271, 272, 304, 305, 331, 336, 341, 346.

7. Complete the following:
   Econ 110.
   and
   Either any 200-level or above economics course
   Or one of the following courses:
   Bus M 340, 372.
   Geog 331.
   ManEc 300**, 376**.
   Pl Sc 344, 372.

   **Go to 480 TNRB to receive permission to register for these courses.

8. Complete the following:
   Pl Sc 110.

9. Complete the following:
   Either Pl Sc 150
   Or any 300-level or higher political science course.

10. Complete the following:
    Psych 111.

11. Complete one course from the following:
    Psych 321, 341, 342, 350, 361, 365.

12. Complete one course from the following:
    Soc 111.
    Anthr 101, 110.

13. Make application during sophomore year to the Teacher Education Department (201 MCKB) one semester prior to beginning the education courses. Because of space limitations not everyone who applies will be accepted.

14. Maintain a GPA of 2.85. A grade lower than C– will not be accepted in any of the major courses.

15. Complete the Professional Education Component:
    a. Complete the following:
       CPSE 402.
       IP&T 286.
       Sc Ed 276R (4 hours), 350, 353, 377R, 378, 379.
    b. Complete 12 hours from one of the following:
       Sc Ed 476R or 496R.

*Hours include courses that may fulfill university core requirements.

Secondary Education (Sc Ed)

Undergraduate Courses

276R. Exploration of Teaching. (3–4:Arr.:Arr. ea.) F, W Prerequisite: major-area preadmission requirements.
Field-based initial teaching experience directed at helping prospective teachers experience demands and opportunities associated with teaching secondary students.

326. Foundations of Teaching. (2:2:0) F, W, Sp, Su Prerequisite: Sc Ed 276R.
Knowledge base of teaching, including social, legal, familial, governmental, technological, and empirical impacts upon the teacher's personal and professional life.

350. Adolescent Development in an Education Context. (2:2:0) Prerequisite; Sc Ed 276R or comparable major course.
Adolescent development and its implications for integrated school culture, curriculum design, instructional practices, and assessment.

353. Multicultural Education. (2:2:0) Prerequisite: Sc Ed 350 or concurrent enrollment; Sc Ed 276R or comparable major course.
Designing and adapting instruction for diverse learners, collaborating with families, cultures, and communities in promoting and sustaining learning.

375. Theory and Methods of Secondary Education. (3:3:0) F, W, Sp, Su Prerequisite: Sc Ed 276R.
Disciplines of education; analysis of educational practice and relationship between theories and research on education and the practice of teaching.

377R. Teaching Methods and Instruction. (3:3:0 ea.) F, W Prerequisite: fingerprint and FBI clearance; major-specific program requirements.
Developing meaningful and engaging instruction for secondary students; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378. Practicum in Secondary Education. (1:0:3) Prerequisite: concurrent enrollment in Sc Ed 377R or comparable major course.
Implementing meaningful and engaging instruction for secondary students; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

379. Classroom Management. (1:1:0) Prerequisite: concurrent enrollment in Sc Ed 377R and 378, or equivalent major courses.
Current theory, research, and application in classroom management; creating positive teacher-student and peer relationships; developing optimal learning environments.

450. Foundations for Bilingual/ESL Education. (2:2:0) F Prerequisite: Sc Ed 276R.
Identifying and assessing legal, linguistic, cultural, community, and familial issues affecting the access of Limited English Proficient (LEP) student populations to education.

476R. Secondary Student-Teaching Internship. (12:Arr.:Arr. ea.) F, W Prerequisite: completion of all course work or departmental approval.
Capstone, field-based, semester-long experience in teaching secondary students; demonstrating proficiency in all program standards. Seminar required. Fee.

477R. Practicum in Bilingual/ESL Education. (0.5–4:0:Arr. ea.) F, W Prerequisite: Sc Ed–El Ed 450, Ling 440, 460, 472, 476, FamLf 305.
Practicum in teaching students with limited English proficiency.

490R. Senior Seminar. (1–2:2:0 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

493R. Readings. (1–2:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

496R. Academic Internship: Secondary Education. (12: Arr.:Arr. ea.) F, W Prerequisite: completion of all course work or departmental approval.
Capstone, field-based, year-long experience in teaching secondary students; demonstrating proficiency in all program standards. Seminar required. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

Note: Sc Ed 514R and 515R are for recertification only. These courses do not count toward preservice secondary licensure or graduate degrees.

514R. Special Topics in Secondary Education. (1–3:3:3 ea.)
On dem.
—Computers in Education
—Content-Area Literacy
—Curriculum and Instruction
—Art Education in Secondary Schools
—Foreign Language Education
—Health and Physical Education
—Language Arts Education
—Literacy in Education
—Mathematics and Computer Science Education
—Science Education
—Social Science Education

515R. Special Topics in Education. (1–3:Arr.:1 ea.) On dem. These courses must have prior approval of department to count toward graduate degrees.

—Classroom Management
—Comprehension Instruction
—Content-Area Literacy
—Effective Teaching
—Foundations of Literacy
—Literacy Assessment and Intervention
—Literacy Development and Instruction
—Literature for Young People
—Science Education
—Secondary Curriculum
—Secondary Instruction
—Teaching and Learning
—Writing Insruction

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Teacher Education Faculty

Professors

Bullough, Robert V., Jr. (1999) BS, MEd, U. of Utah, 1971, 1973; PhD, Ohio State U., 1976.
Chilcoat, George (Skip) (1989) BA, MEd, EdD, Arizona State U., 1972, 1975, 1983.
Earle, Rodney S. (1993) BA, MEd, Brigham Young U., 1971, 1973; PhD, Indiana U., 1981.
Egan, M. Winston (1993) BA, Brigham Young U., 1967; MAT, Oakland U., 1972; PhD, U. of Florida, 1974.
Eldredge, J. Lloyd (1981) BS, Brigham Young U., 1958; MS, EdD, U. of Utah, 1962, 1970.
Hansen, J. Merrell (1988) BA, MEd, Brigham Young U., 1964, 1967; PhD, U. of Texas, Austin, 1971.
Jacobs, James S. (1976) BA, U. of Utah, 1968; MA, Stanford U., 1970; EdD, U. of Georgia, 1978.
Monroe, Eula Ewing (1992) BS, MA, Western Kentucky U., 1960, 1964; EdD, George Peabody Coll. of Vanderbilt U., 1980.
Tolman, Marvin N. (1975) BS, Utah State U., 1964; MEd, U. of Utah, 1969; EdD, Utah State U., 1975.
Tunnell, Michael O. (1992) BA, Brigham Young U., 1973; MEd, Utah State U., 1978; EdD, Brigham Young U., 1986.
Tuttle, Marie (1976) BS, MEd, Brigham Young U., 1969, 1976; PhD, Texas A&M U., 1995.
Wentworth, Nancy M. (1992) BS, MA, PhD, U. of Utah, 1971, 1972, 1992.

Associate Professors

Birrell, James (1993) BS, Brigham Young U., 1981; MEd, U. of Utah, 1984; EdD, U. of Nevada, Las Vegas, 1993.
Draper, Roni Jo (2000) BS, MS, PhD, U. of Nevada, Reno, 1991, 1995, 2000.
Erickson, Lynnette B. (1996) BS, MA, Brigham Young U., 1978, 1987; PhD, Arizona State U., 1996.
Morrison, Timothy G. (1994) BA, MEd, Brigham Young U., 1977, 1979; PhD, U. of Illinois, Urbana-Champaign, 1986.
Pinnegar, Stefinee (1992) BS, MA, Brigham Young U., 1978, 1989; PhD, U. of Arizona, 1992.
Wilcox, Brad (1990) BS, MEd, Brigham Young U., 1985, 1990; PhD, U. of Wyoming, 1994.
Young, Janet R. (1996) BS, MA, Brigham Young U., 1974, 1989; PhD, U. of Oklahoma, 1996.

Assistant Professors

Bingham, Gary (2004) BA, MS, Utah State U., 1996, 1998; PhD, Purdue U., 2002.
Hall, Kendra (2002) BS, Brigham Young U., 1996; MA, PhD, Columbia U., 2000, 2002.
Juarez, Brenda (2004) BA, Brigham Young U., 1992; MEd, PhD, U. of Utah, 1997, 2004.
Korth, Byran B. (2004) BS, MS, Brigham Young U., 1993, 1995; PhD, Auburn U., 2000.
Losser, Janet (2004) BA, Utah State U., 1989; MEd, Brigham Young U., 1997; PhD, U. of Georgia, 2003.
Ridlon, Candice (2003) BS, Florida State U., 1980; MEd, Valdosta State U., 1996; PhD, Florida State U., 1999.
Smith, Leigh K. (2001) AS, BS, MA, Brigham Young U., 1975, 1989, 1995; PhD, U. of Utah, 2002.

Emeriti

Allred, Ruel A. (1961) BS, MS, Brigham Young U., 1954, 1958; EdD, U. of Oregon, 1965.
Allred, Wallace E. (1956) BS, MEd, Brigham Young U., 1956, 1957; MS, Oregon State U., 1965; PhD, U. of Utah, 1971.
Arnoldsen, Larry M. (1969) BS, Brigham Young U., 1960; MA, California State Polytechnic U., 1965; EdD, Brigham Young U., 1985.
Baird, Joseph Hugh (1963) BS, MS, U. of Utah, 1954, 1954; EdD, U. of California, Berkeley, 1962.
Belt, W. Dwayne (1961) BA, Brigham Young U., 1952; MA, EdD, Colorado State Coll., 1958, 1961.
Berryessa, Max J. (1963) BS, MS, Brigham Young U., 1948, 1949; EdD, Stanford U., 1959.
Black, Harvey B. (1970) BA, MA, Brigham Young U., 1950, 1954; PhD, Indiana U., Bloomington, 1962.
Bowles, Catherine (1960) BS, MEd, Brigham Young U., 1936, 1953.
Clark, D. Cecil (1974) BS, MS, Brigham Young U., 1960, 1961; PhD, Stanford U., 1965.
Clark, H. Clifford (1969) BS, EdD, Brigham Young U., 1954, 1963; MA, California State U., Los Angeles, 1957.
Clark, Welsford Hone (1956) BS, MEd, Brigham Young U., 1956, 1962.
Clemmer, Janice White (1980) BS, Brigham Young U., 1964; MA, Dominican Coll. of San Rafael, 1975; MA, U. of San Francisco, 1976; PhD, PhD, U. of Utah, 1979, 1980; JD, Brigham Young U., 1993.
Compton, Lane A. (1953) BS, MS, EdD, U. of Utah, 1944, 1951, 1955.
Cook, Paul F. (1977) BS, Utah State U., 1960; MS, PhD, Brigham Young U., 1966, 1968.
Coombs, C. Garn (1971) BS, U. of Utah, 1962; MA, DA, Carnegie-Mellon U., 1968, 1975.
Cutler, Beverly R. (1969) BA, U. of Utah, 1952, MS, Brigham Young U., 1963; PhD, Stanford U., 1966.
Daines, Delva (1955) BS, MS, Utah State U., 1940, 1947; EdD, Washington State U., 1956.
Dunn, James W. (1970) BS, MS, EdD, Brigham Young U., 1950, 1960, 1968.
Edwards, Clifford H. (1978) BS, MEd, Utah State U., 1962, 1964; EdD, U. of Utah, 1968.
Hardy, Garry Ray (1970) BS, Utah State U., 1961; MS, Brigham Young U., 1970; EdD, U. of Houston, 1977.
Harmon, Frank W. (1963) BS, MS, U. of Utah, 1952, 1956; EdD, Columbia U., 1964.
Harris, R. Carl (1975) BS, MS, Utah State U., 1967, 1968; PhD, Pennsylvania State U., 1971.
Heil, Lillian H. (1974) BA, Fresno State Coll., 1950; MS, U. of Utah, 1960; EdD, Columbia U., 1968.
Koplin, Joanne W. (1968) BS, U. of Utah, 1951; MEd, Brigham Young U., 1976.
Larsen, Jean M. (1963) BS, MS, Brigham Young U., 1953, 1960; PhD, U. of Utah, 1972.
Livingston, Nancy (1992) BS, MS, U. of Utah, 1964, 1970; EdD, Brigham Young U., 1975.
Moore, Blaine H. (1970) BS, MEd, Brigham Young U., 1955, 1960; EdD, Colorado State Coll., 1969.
Nelson, Marvin N. (1959) BS, MS, Brigham Young U., 1951, 1961; PhD, U. of Utah 1975.
Rogers, J. Keith (1971) BS, MEd, Brigham Young U., 1959, 1963; PhD, Michigan State U., 1971.
Searle, June G. (1961) BS, MEd, Brigham Young U., 1958, 1967; PhD, U. of Utah, 1974.

Sucher, Floyd (1991) BS, Brigham Young U., 1954; MA, California State U., Los Angeles, 1957; EdD, Northern Colorado State U., 1963.
Walker, Jess M. (1993) BS, MA, U. of Utah, 1960, 1964; PhD, Michigan State U., 1972.
Wolfgramm, Harold F. (1966) BS, MS, PhD, U. of Utah, 1959, 1960, 1964.

Teaching English to Speakers of Other Languages

See Linguistics and English Language section of this catalog.

School of Technology

Val Hawks, Director
265 CTB, (801) 422-6300

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325

Admission to Degree Program

Each degree program in the School of Technology has specific enrollment requirements. Please see each program's admission requirements for specific details.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS	Construction Management
BS	Facilities Management
BFA	Industrial Design
BS	Information Technology
BS	Manufacturing Engineering Technology
BS	Technology Teacher Education
Minors	Information Technology
	Manufacturing

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Technology

For more information see the BYU 2007–2008 Graduate Catalog.

Animation Degree Program

The BFA in animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the Department of Theatre and Media Arts, the Department of Visual Arts, and the Ira A. Fulton College of Engineering and Technology's School of Technology. Please see the Visual Arts section of this catalog for degree requirements, or go to the College of Fine Arts and Communications Advisement Center for more information about entrance requirements to this program.

General Information

Financial Support Opportunities

In addition to general university scholarships and student employment, the School of Technology offers scholarships, an academic internship program with industry, and a variety of departmental part-time jobs such as research assistant, new-product developer, lab assistant, paper grader, electronics technician, maintenance assistant, computer operator, etc.

Academic Internships

Industrial experience in the major before graduation is strongly encouraged. Qualified students may enroll in an academic internship, which must be approved before the actual experience. A formal report and employer evaluation are required.

Transfer Credit

When transferring into the school, students should meet with an assigned advisor before registering for classes to evaluate their technical courses and to get help in planning their schedule for completing their remaining course work.

Extracurricular Activities

Students are encouraged to join student chapters of national professional organizations affiliated with their major area of study. Student interaction, leadership, and career awareness are important to engineering and technology studies. All majors are encouraged to not only become members and actively participate in these chapters but also to support field trips, guest speakers, banquets, and program activities.

Professional Program Acceptance

Students must be accepted into the professional program before they may take upper-division courses in any of the department programs. Construction management and industrial design have additional restrictions that apply to major courses. (See the Construction Management and the Industrial Design sections of this catalog that follow.) A professional program application (available from the Ira A. Fulton College of Engineering and Technology Advisement Center, 264 CB) must be completed and submitted to the advisement center. Acceptance is based primarily upon the grade point average received in preprofessional and other major courses, including all grades in repeated courses.

Academic Standards and Continuance

On gaining acceptance into the professional program, students must maintain a minimum university cumulative grade point average of 2.0. A professional program course may not be retaken more than once.

Student Advising

We strongly encourage students to visit with the School of Technology advisor (230 SNLB) at least every year, and preferably every semester, to ensure that they are making appropriate progress in the program and taking courses in the appropriate sequence.

Construction Management

Jay P. Christofferson, Chair
230 SNLB, (801) 422-2021

Admission to Degree Program

Admission to the construction management (CM) preprofessional program is open to all BYU students. Students may then apply for the professional program. An application to the professional program must be submitted upon completion of required prerequisite courses (Phscs 105, Engl 150 or equivalent, Math 112, and CM 105). Along with the application, the candidate should send a resumé and a letter indicating why he or she would like to major in construction management, including in it a paragraph explaining the candidate's intentions for fulfilling the required 300 hours of construction-related work. Applicants will be evaluated based on GPA, work experience, and leadership.

Program application deadlines are August 1, December 1, and April 1. Upon acceptance into the professional level, students are required to attend one spring or summer term.

The Discipline

Construction management is the business of managing projects. It is a rapidly growing field that requires technical expertise and the ability to work with people, and there is increasing demand in the industry for capable graduates. Construction management offers an exciting career that requires abilities in business management, architecture, engineering, and construction technology.

Career Opportunities

The program has had nearly 100 percent placement within the construction industry, with salaries typically near the top range of BYU graduates. Graduates find employment in a variety of construction-industry-related positions. Typical position titles are superintendent, estimator, scheduler, field engineer, general contractor, safety engineer, project manager, procurement manager, project engineer, cost controller, project controller, site analyst, etc.

Alumni find they are qualified for employment in all types of construction. It is a broad-based program that provides the training and experience needed for several occupational opportunities.

This major is also excellent preparation for students desiring graduate study in architecture, business management, or construction law.

General Information

High School Preparation

Recommended high school courses include drafting, algebra, trigonometry, calculus, physics, and construction, along with the other courses necessary for admittance to BYU.

Prearchitecture Program

Brigham Young University does not have an architecture program, but construction management provides an excellent preparatory program for architecture. Consult with the School of Technology advisor concerning a prearchitecture program.

Special Notice

Students receiving C– or lower grades in required courses will be placed on department probationary status.

BS Construction Management (99 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessional courses:
   CM 105.
   Engl 150 or equivalent.
   Math 112.
   Phscs 105.
2. Be accepted into the professional program.
3. Students must complete 300 hours of preapproved construction-related work after acceptance into the professional program and submit a report during the CM 491R class.
4. Complete the following professional courses:
   CM 155, 210, 211, 217, 241, 311, 320, 335, 345, 385, 411, 412, 415, 426, 445.
5. Complete seven registrations of the following (one enrollment each semester except when enrolled in CM 491R):
   CM 291R.
6. Complete one registration of the following during fall semester of senior year:
   CM 491R.

7. Complete the following supporting courses:
   Acc 200.
   Bus M 300.
   CE En 103, 113, 302.
   Econ 110.
   Geol 330.
   Org B 320.
   Phil 213.
   Phscs 106.
   Stat 221.
   TMA 150.
8. Complete one course from the following:
   Engl 316.
   M Com 320.

*Hours include courses that may fulfill university core requirements.

Construction Management (CM)

Undergraduate Courses

105. Construction Documents. (3:3:0) F, W
How and why specific types of contract documents and specifications are compiled for a project; reading and interpreting complex construction documents. Fee.

155. Architectural Drafting. (3:2:3) F, W
Developing architectural plans: floor, foundation, plot, elevations, sections, and details. Introduction to architectural CAD. Fee.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

210. Light Structural Systems. (3:2:4) F, W
Light structural construction using wood and metal framing systems.Fee.

211. Finishing Methods in Construction. (2:2:0) F, W
Managing the interior and exterior finish work in construction. Quality-control procedures and inspection.

217. Concrete and Masonry Construction. (3:2:3) F, W
Quality concrete and masonry, including admixtures, concrete forming reinforcement, curing, and testing. Brick and block masonry construction. Quality-control.

241. Electrical Systems in Construction. (2:2:2) F, W
Electrical circuits in the construction industry.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W
Required each semester for undergraduate majors who are not enrolled in CM 391R or 491R. School lecture series attendance required.

311. Quantity Takeoffs. (3:3:0) F, W Prerequisite: CM 210, 211, 217.
Compiling, organizing, and analyzing all the items that influence and contribute to total cost of residential and commercial construction projects. Maximizing estimating effectiveness and efficiency through computer integration.

320. Mechanical Systems. (3:3:0) F, W Prerequisite: CM 210.
Basic plumbing and HVAC principles, materials; installation and application methods. Systems sizing and design, heat loss/gain calculations, and payback analysis. Managing the plumbing and HVAC trades.

335. Construction Equipment and Soils Mechanics. (3:3:0) F, W Prerequisite: Geol 330.
Basic soil mechanics and subsurface construction theory and practice for foundations of building and engineered facilities. Underpinning, piling, dry and wet excavating, dewatering, cofferdams, caissons, and spread and strip foundations. Lecture, field trips.

345. Construction Safety Management. (2:2:0) F, W
Safety requirements and responsibilities in construction; cost and impact of accidents; accident investigation; safety inspection; hazards analysis; substance abuse; record keeping.

385. Construction Contracts and Law. (3:3:0) F, W
Contractual obligations defined, including agency, contract interpretation, performance and liability issues, breach and termination, judicial remedy, and arbitration as applied to the construction industry. Overview of municipal zoning ordinances and codes.

411. Advanced Estimating and Bidding. (3:2:3) F, W Prerequisite: CM 311.
Commercial estimating topics include competitive bidding strategies, bid analysis, paper and electronic plans, site work, and computerized estimating systems.

412. Construction Scheduling and Cost Control. (3:2:3) F, W Prerequisite: CM 311 or concurrent enrollment.
Planning, scheduling, and monitoring construction projects, including development of critical path networks (CPM and PERT), Gannt bar charts, construction cost control, and reporting practices.

415. Construction Project Management and Control. (3:3:0) F, W Prerequisite: CM 412.
Managing and controlling construction projects. Planning, startup procedures, inspections, progress measurements, field reports, change order and submittal processing, equipment management, and project closeout.

426. Real Estate Principles and Development. (4:4:0) F, W Prerequisite: Bus M 300 and instructor's consent.
Principles of real estate investments, emphasizing mortgage instruments and development of property from raw land to residential and commercial properties.

445. Construction Company Operations and Management. (3:3:0) F, W Prerequisite: Bus M 300; CM 415 or concurrent enrollment.
Organizing, controlling, and directing operations of construction companies; financial management, budgeting, cash-flow analysis, purchasing and cost control, and business planning.

491R. Senior Seminar. (0.5:1:0 ea.) F, W
Developing best employment opportunities and strategy; interviewing, sales negotiations, resumé and letter writing, and salary negotiations. College Lecture attendance required. Report on 300 hours of construction-related work experience.

494R. Special Problems in Construction Management. (1–3:Arr.:Arr. ea.) F, W Prerequisite: instructor's consent.

500-Level Graduate Course (available to advanced undergraduates)

510. Integrating Construction Software. (3:3:0) Prerequisite: CM 411 or equivalent.
Integrating information generated through state-of-the-art hardware and software using scheduling, cost control, estimating, spreadsheets, databases, and word processing to improve the construction process.

Facilities Management

Jeffery L. Campbell, Chair
230 SNLB, (801) 422-2021

Admission to Degree Program

Admission to the facilities management preprofessional program is open to all BYU students, who may then apply for the professional program. After completing required prerequisite courses, candidates should send an application to the professional program, along with a letter indicating what skills they have that

would make them a successful facility manager; a description of the candidate's leadership experience; and a resumé. Applicants will be evaluated based on GPA, skills, leadership, and work experience.

Program application deadlines are April 1, August 1, and December 1.

The Discipline

This program prepares students to be part of the administrative/supervisory team in the increasingly complex world of facilities and property management. The facilities manager combines management practices with the most current technical knowledge in nine competency areas: real estate, operations and maintenance, human and environmental factors, project planning and management, finance, quality assessment and innovation, facility administration, communication, and technology.

Career Opportunities

The program has nearly 100 percent job placement within the field of facilities management. Employment can be found with colleges and universities, hospitals and health care centers, sports and entertainment arenas, and general business facilities.

Responsibilities encompass supervision of planning, renovation, and maintenance of buildings and grounds. Attention is given to employee health and safety, security, disaster planning, and environmental concerns. The program is broad based and prepares managers for all types of facilities, with salaries among the upper-level of university graduates.

Further educational opportunities include advanced degrees in facilities management, business administration, public administration, or other related fields.

BS Facilities Management (87 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following preprofessonal courses:
   Acc 200.
   Econ 110.
   FM 110.
   Stat 221.
2. Be accepted into the professional program.
3. Complete 2 hours of the following:
   FM 199R.
4. Complete six registrations of the following:
   FM 291R.
5. Complete the following:
   Bus M 300, 340.
   CM 105, 155, 210, 211, 241, 311, 320, 385, 412, 415, 426.
   FM 310, 340, 360, 399R, 420, 430.
   Org B 320, 327.
   PAS 103.
6. Complete one course from the following:
   Bus M 371R, 380, 382, 384.
7. Complete 5 credit hours from the following:
   CM 345, 411.
   P Mgt 321.
   RMYL 371, 483.
   TMA 150.

*Hours include courses that may fulfill university core requirements.

Facilities Management (FM)

Undergraduate Courses

110. Fundamentals of Facility and Property Management. (3:3:0) F
Overview of the profession of facility and property management, including space regulations, finance, project management, and other current practices.

199R. Technical Internship. (2:0:0 ea.) Prerequisite: acceptance into the facilities management professional program or coordinator's consent.
Cooperative education and related technical on-the-job work experience.

291R. Special Topics in Facility and Property Management. (0.5:1:0 ea.) F, W
Topics presented by professionals relating to the facility and property management discipline.

310. Human and Environmental Management. (3:3:0) F Prerequisite: acceptance into the facilities management professional program; FM 110.
Regulatory occupancy codes, safety and security planning. U.S. Green Building Council LEED for Existing Buildings accreditation preparation.

340. Operations and Maintenance. (3:3:0) W Prerequisite: acceptance into the facilities management professional program; FM 110, CM 241, 320.
Acquisition, operation, maintenance, and disposal of building systems, structures, permanent interiors, furniture, and equipment; grounds and other exterior elements.

360. Facility and Property Management Technologies. (3:3:0) F Prerequisite: acceptance into the facilities management professional program; FM 110.
Current trends and practices of computer-aided facility management (CAFM), computerized maintenance management systems (CMMS), and integrated computer-aided design (CADD) applications and databases.

399R. Capstone Internship. (3:3:0 ea.) F, W, Sp, Su Prerequisite: acceptance into the facilities management professional program; FM 110; instructor's consent.
Cooperative education and related facility and property management on-the-job work experience. Project report required for IFMA Facility Management Professional (FMP) designation.

420. Commercial Real Estate Management. (2:2:0) F 1st blk. Prerequisite: acceptance into the facilities management professional program; FM 110, CM 426.
Fundamentals of commercial real estate investment, understanding market influences, contracts and property portfolio management.

430. Capital Planning and Asset Management. (3:3:0) W Prerequisite: acceptance into facilities management professional program; FM 110, 360.
Understanding useful life of building and infrastructure systems and creating a process to manage their life cycles; emphasis on justifying and funding capital projects.

494R. Special Topics in Facility and Property Management. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: acceptance into facilities management professional program; instructor's consent.

Industrial Design

Richard E. Fry, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the freshman level in the industrial design program is obtained through an application process. Special enrollment

limitations for degree programs will be applied. Please see the School of Technology advisor (230 SNLB) for specific details.

After two years of skill development and introductory studies, students apply for the BFA (bachelor of fine arts) candidacy.

The Discipline

Industrial design is a blend of art and technology. It focuses on making industrially produced objects that are appropriate aesthetically and useful to specific people/markets. Industrial design requires skills in two- and three-dimensional aesthetics, drawing, and visual communications, as well as an understanding of how things are manufactured and work.

Career Opportunities

Industrial designers specialize in areas as diverse as automobiles, toys, sports and medical equipment, consumer products for the home, business, exhibits, furniture, electronics, and computer design. Computer modeling and visualization are new areas for design exploration in the discipline.

With the popularity of computer modeling and visualization, industrial design participates jointly in the interdisciplinary animation degree with the Visual Arts and Theatre and Media Arts departments. For more information on this degree and its requirements, please see the Visual Arts section of this catalog.

The Industrial Design Program

The industrial design program serves three main purposes: (1) it teaches the aesthetic and creative skills necessary to be successful in the discipline, (2) it provides opportunities to practice industrial design principles, and (3) it teaches about the relationship of design to business and culture. The program is enhanced by a strong tradition of working with outside industry sponsors for projects on which to practice core skills.

Responding to the popularity of computer modeling and visualization, the industrial design program also participates in the interdisciplinary animation degree with the Visual Arts and the Theatre and Media Arts departments. For more information about this degree and its requirements, please see the Visual Arts section of this catalog.

General Information

Application Procedures for Freshmen

Students are accepted into the program twice a year: in April for spring/summer enrollment and in August for fall/winter. Enrollment is limited and based on several qualifications:

1. Admission to the university.
2. Completion of the program application form.
3. Submission of the portfolio.
4. Completion of the creative exercise.
5. Passing the portfolio review.

Appropriate forms are contained in an application packet available from the School of Technology office (230 SNLB).

Application packets must be obtained and returned before April 1 for spring enrollment or August 1 for fall. Individuals will be notified whether or not they have been accepted by April 15 for spring/summer or August 15 for fall/winter.

Note: Individuals receiving notice of acceptance will be permitted to register for the foundation 100-level core courses for the term or semester immediately following their acceptance. Failure to do so will require reapplication to the industrial design program for the year the student actually plans to attend.

Sophomore-Through-Senior BFA Degree Program Enrollment

Permission to enroll for sophomore- through senior-level BFA degree program courses is granted to students upon satisfactory development of skills and creative abilities, demonstrated in a review of a drawings-and-designs portfolio completed during the preceding year. Faculty will assess portfolios of work submitted by students wishing to advance in their study. Students invited to continue are permitted to enroll in specified courses at the next academic level. Those students who are not invited to continue must petition the faculty in writing to be allowed to retake courses in the industrial design program.

Transfer Students

Transfer students must participate in a portfolio review to be held in April in conjunction with the freshman portfolio review. Application packets must be obtained before March 1 and returned before April 1. Enrollment is limited and based on several qualifications:

1. Admission to the university.
2. Completion of program application form.
3. Submission of transcript showing credit for university-level art instruction.
4. Submission of portfolio.
5. Passing of portfolio review.

Contact the School of Technology advisor (230 SNLB) for admission packets and formal application procedures.

Degree Program Advisors

Advisors are appointed to counsel students in the major. Advisors will advise students about program objectives, course content and sequence, career goals, and other matters pertaining to their major field of study.

Department Probationary Status

Students can be placed on probationary status for the following:

1. Inadequate academic performance.
2. Unprofessional attitude and lack of commitment.
3. BYU Honor Code violations.

Industrial Design Core

Required of all industrial design majors, the core enables students to acquire a basic and broad understanding of design principles before engaging in the specific content of the discipline. It is a predisciplinary preparation that embraces basic aesthetic awareness, systems for visual communication, and form generation principles.

BFA Industrial Design (73 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the School of Technology advisor (230 SNLB) for information regarding requirements for admission to this major.

Major Requirements

1. Meet application criteria for admission into program.
2. Complete all 100-level foundation courses before admission into sophomore-level courses.
3. Submit a portfolio at the conclusion of each year for advancement to the next year's curriculum.
4. Complete the following core requirements.
   InDes 130A/B, 131A/B, 132A/B, 133A/B.
5. Complete the following:
   InDes 210, 214R, 230, 231, 232, 233, 310, 340, 488.
   TTE 229.
6. Complete a minimum of one hour from one of the following:
   InDes 199R, 496R.
7. Complete three courses from the following:
   InDes 330, 332, 430, 432.
8. Complete one additional course from the following:
   InDes 330, 332, 430, 432, 435R, 475R.

   Note: Courses taken for item 7 cannot be used for item 8.

9. Complete 6 hours from the following:
   InDes 497R.

   Note: Me En 475, 476 can be substituted for this requirement.

10. Complete the following art history requirement:
    InDes 339.

11. Complete 9 hours of art history from the following:
    a. Complete one course from the following:
       ArtHC 201.
       Hum 201.
       Mfg 201.
    b. Complete one course from the following:
       ArtHC 202.
       Hum 202.
       Mfg 202.
    c. Complete one course from the following:
       ArtHC 350, 355, 365, 367.
       HFL 329.

12. Complete 5 hours from the following:
    InDes 331R, 341, 435R, 475R, 494R.
    Mfg 220, 230, 355, 479.
    TMA 452R.
    TTE 200.
    VAStu 353R.

    Note: Courses taken for item 7 and item 8 cannot be used for item 12.

Industrial Design (InDes)

Undergraduate Courses

130A,B. Visual Design Language/Computers for Industrial Design. (1.5:3:3 ea.) A: F, Sp; B: F, Su
Visual organization; principles and elements of design. Digital image manipulation/creation for industrial design. Raster- and vector-based programs.

131A,B. Creativity and Design Thinking. (1.5:3:3 ea.) A: F 1st blk., Sp; B: F 2nd blk., Su
Flexible, visual, and creative thinking; applying these modes to industrial design.

132A,B. Form and Surface Development. (1.5:3:3 ea.) A: W, Sp; B: W, Su
Exploring origin and nature of geometric and organic form. Learning to control specific surface characteristics such as highlight and finish.

133A,B. Visualization Methods. (1.5:3:3 ea.) A: W 1st blk., Sp; B: W 2nd blk., Su
Observational skills, drawing as communication, rapid visualization techniques, orthographic projection, dimensioning, perspective construction, shadows and reflections, and form construction/indication.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: admission by portfolio.
Work experience evaluated by supervisor and posted on student's transcript.

210. Intermediate Computer Applications. (2:0:2) F Prerequisite: industrial design core.
Computer software programs relative to design disciplines.

214R. Model Making and Prototyping. (2:2:2 ea.) F, W Prerequisite: InDes 133A and TTE 229 or concurrent enrollment.
Theories and fundamentals of model making and prototype construction. Creative use of multiple materials and processes. Plastic, composites, foam core, wood, metal, and found objects.

230. Introduction to Industrial Design. (3:3:3) F Prerequisite: industrial design core.
Industrial design research, analysis, and problem-solving methods.

231. Presentation Methods for Industrial Design 1. (2:2:2) F Prerequisite: industrial design core.
Product presentation methods emphasizing perspective, value, scale, accuracy, and color.

232. Industrial Design Studio 1. (3:3:3) W Prerequisite: InDes 230, 231.
Continuation of InDes 230, emphasizing human factors and ergonomics, restrictions and possibilities of materials and manufacturing, and coherent presentation of problems, processes, and ideas.

233. Presentation Methods for Industrial Design 2. (2:2:2) W Prerequisite: InDes 231.
Continuation of InDes 231.

250. Introduction to Three-Dimensional Computer Graphics. (2:4:0) F Prerequisite: admittance to animation major.
Fundamentals of modeling, texturing, lighting, and rendering used in exploring principles and elements of three-dimensional design.

251. Fundamentals of Two-Dimensional Computer Graphics. (2:4:0) F Prerequisite: admittance to animation major.
Learning design language by exploring elements of photography, drawing, and two-dimensional computer graphics, including color theory and conceptual elements of composition.

252. Introduction to Three-Dimensional Animation. (2:4:0) W Prerequisite: InDes 250, 251.
Foundational principles and techniques of three-dimensional animation, including timing and pacing, character setup, and dynamics.

255R. Computer Graphics for Non-Animation Majors. (2:2:2 ea.) F, W
Techniques used in modeling, texturing, lighting, and rendering, including color theory, composition, visual literacy, and principles of design.

310. Advanced Computer Applications. (3:3:3) W Prerequisite: InDes 210.
Specific program applications of computers to design disciplines.

330. Industrial Design Studio 2. (3:3:3) F Prerequisite: industrial design core.
Designer responsibilities, structured and unstructured procedures in problem solving, client relationships, functional relationships, and mechanisms and materials.

331R. Presentation Methods for Industrial Design 3. (2:2:2 ea.) Prerequisite: acceptance into the BFA program or instructor's consent.
Sketching and rendering techniques focused on surface materials and finishes.

332. Industrial Design Studio 3. (3:3:3) W Prerequisite: InDes 330.
Continuation of InDes 330 with renewed emphasis on human factors and ergonomics, plus market and user requirements and developing written briefs.

339. History of Products. (3:3:0) W Prerequisite: industrial design core.
Overview of artifacts and products; how they have influenced society from prehistory to present day.

340. Graphics Studies for Industrial Design 1. (3:3:3) F Prerequisite: BFA acceptance.
Introduction to graphic skills such as corporate identity, packaging design, logo design, and Web/interface design elements.

341. Graphics Studies for Industrial Design 2. (3:3:3) W Prerequisite: BFA acceptance.
Packaging and its function in the marketplace; current packaging technology and aesthetics.

350. Computer Graphics Studio 1. (3:3:3) F Prerequisite: InDes 250, 252.
Advanced character design, setup, and animation.

352. Computer Graphics Studio 2. (3:3:3) W Prerequisite: InDes 350.
Designing interdisciplinary group projects: workflow, team dynamics, and processes of production pipelines.

410R. Computer Applications Studio. (2:2:2 ea.) F Prerequisite: InDes 310.
Individual major project using high-end hardware and software.

430. Industrial Design Studio 4. (3:3:1) F Prerequisite: InDes 332, 333.
Systems design problems from initial research and analysis to final presentation of working drawings and models, with concern for ergonomics, anthropometries, marketing, user and buyer, production, function, and structure.

432. Industrial Design Studio 5. (3:3:3) W Prerequisite: InDes 330, 332, 430.
Portfolio development based on advanced design projects.

435R. Furniture Design. (3:3:2 ea.) Prerequisite: TTE 200 or instructor's consent.
Design, materials, processes, structures, production methods, and prototype construction.

450. Computer Graphics Studio 3. (3:3:3) F Prerequisite: InDes 352.
Continuation of InDes 352. In-depth experiences making computer animations and visual effects.

452. Computer Graphics Studio 4. (3:3:3) W Prerequisite: InDes 450.
Portfolio development based on advanced animation/design projects.

455R. Shader Programming. (2:2:2 ea.) F
Advanced rendering and shading techniques for attaining desired visual effects. Using shading languages for realizing both photorealistic and non-photorealistic imaging.

456R. Virtual Reality. (2:2:2 ea.) W Prerequisite: InDes 205 or 255R.
Various aspects of virtual reality. Topics may include virtual walk-through, data visualization, real-time graphics, and integrating audio in a virtual experience.

475R. Transportation Design. (3:3:3 ea.) Prerequisite: major status; instructor's consent.
Exploration in the aesthetics, human factors, market requirements, and presentation aspects unique to transportation design, emphasizing working with outside project sponsors.

488. Professional Practices of the Designer. (2:2:0) Prerequisite: junior or senior standing.
Business aspects of the design profession.

489. Portfolio Preparation. (2:1:1)
Final portfolio preparation.

494R. Special Problems in Design. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in area of special interest.

496R. Academic Internship: Professional Internship. (1–3:0:0 ea.) Prerequisite: school's and faculty advisor's consent.
Work experience in professional design studio evaluated by supervisor.

497R. BFA Final Project. (3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project with minimum guidance, showing high degree of competence within chosen major.

499R. Directed Studies. (1–6:Arr.:Arr. ea.)

Information Technology

C. Richard G. Helps, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the information technology preprofessional program is open to all BYU students. After completing required prerequisite courses, they may then apply for the professional program. As part of the application the student must file a graduation plan and intended emphasis area. Application deadlines are April 1, August 1, and December 1. See The School of Technology advisor (230 SNLB) for further information.

The Discipline

Information technology (IT), the technical discipline that solves problems using computing resources, will be taught through a combination of strong theoretical course work and practical application to ensure that all three aspects of the technological educational triumvirate (knowing, thinking, doing) are included. IT professionals from this discipline are competent to design computing systems with due consideration of the performance and compatibility aspects of hardware, software, and digital communication and networking. They can visualize, structure, and implement complex technical solutions.

Professionals in this discipline are also proficient in understanding user needs and communicating technical issues to the organizations and people affected by the computer system. They are "anxiously engaged" in lifelong learning to understand and wisely use new technologies as they become available. Broadly educated at the university level, these professionals have acquired balance in their lives and depth of understanding in technology and its relevance in the broader world context. Because of the influence and leadership roles we expect graduates to have, our students will be encouraged to develop high moral and ethical standards as well as being conversant with and compliant with professional performance standards.

Career Opportunities

Career opportunities are plentiful and rewarding in both large and small companies in technical fields. Graduates will find careers in computer networking, testing, embedded intelligence, digital communications, computer system development, and integration.

General Information

Technical Electives

Six upper-division credit hours of information technology technical courses are required. Selected from courses in the major, these electives must be approved by an advisor prior to taking them.

Students are also strongly advised to strengthen their degree by using additional credit hours to fulfill a minor or gain greater depth in a focused area of the discipline. Some suggested areas are electronic systems, computer science, industrial design, manufacturing, or business leadership. Students are required to indicate their area of study when they apply to the professional program.

High School Background

Recommended high school courses include computer programming, electronics, mathematics, and science courses.

Transfer Students

This degree is designed to have some similarity to computer science and electrical and computer engineering courses in the first few semesters. Students can transfer from these programs in two-year colleges or from other four-year programs.

Special Notice

Students receiving C– or lower grades in required courses will be placed on department probationary status.

BS Information Technology (76.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor (230 SNLB) for information regarding requirements for admission to this major.

Major Requirements

1. Complete 30 hours of university-level credit with a minimum cumulative GPA of 2.0.
2. Complete the following preprofessional courses:
   C S 142.
   IT 104A,B, 210A,B.
   Math 112.
3. Complete the following supporting courses:
   C S 235, 236.
   Econ 110.
   Engl 316.
   Phscs 121, 123.
   Stat 332.
4. Complete the following professional courses:
   IT 101, 251A,B, 327, 344, 347, 350, 355, 446, 447, 466.
5. Complete 2 hours of the following:
   IT 391R.
6. Complete 3 hours of the following:
   Honrs 331R.
7. After consulting with an information technology advisor, complete 6 hours of upper-division information technology technical electives.
8. Complete the following:
   IT 491R.

*Hours include courses that may fulfill university core requirements.

Minor Information Technology (16 hours)

Minor Requirements

1. Complete the following:
   IT 101, 210A,B, 251B.
2. Complete three courses from the following to complete the 16 hours required for the minor:
   IT 251A, 327, 344, 347, 350, 355, 466.

Note: Some of the above courses also have prerequisites, which the student must either take or satisfy in another manner. The main prerequisite is experience using a programming language, preferably C, C++, or Java (see C S 142).

Information Technology (IT)

Undergraduate Courses

101. Cornerstone: Information Technology. (2:1:2) F, W
Planning to be a successful student and preparing for a successful career in information technology. Developing skills with computers, problem solving, studying, and time management. Comparing information technology to computer science, computer engineering, and master of information systems. Fee.

104A,B. Digital Electronics Foundations. (2:3:3 ea.) F, Sp Prerequisite: Math 111 or equivalent.
AC and DC electronics, digital fundamentals, and circuits. Ohm's law and power; impedances and frequency effects; AC wave forms; numbering systems; boolean systems, combinational and sequential logic; spectral analysis. Fee.

198R. Directed Studies in Information Technology. (2:2:2 ea.)
Introductory course. Special topics in problem-solving and technology careers.

199R. Academic Internship: Information Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

210A,B. Fundamentals of Web-Based Information Technology. (2:3:3 ea) F on blk, Sp Su Prerequisite: C S 142, IT 101.
Web technologies, including operating systems, networking, database concepts, and tools from a Web development and infrastructure management perspective. Web systems integration and development projects.

251A,B. Computer Architecture and Organization. (2:3:3 ea.) W on blk., Sp, Su Prerequisite: CS 142 and IT 104B for IT 251A; IT 251A for IT 251B.
Principles of computer hardware. Internal CPU organization and implementation. Principles of computer instruction set architecture. Peripheral interconnect and IO systems. Low-level programming. Low-level security issues.

304. Devices and Circuits in Information Technology. (3:2:3) Prerequisite: IT 104A,B.
Electronic building blocks for information technology systems. Includes p-n junctions, diodes and transistors, op-amps, oscillators and phase lock loops, and analog integrated circuits. Course enhances IT 327.

314. Industrial Electronics. (3:2:3) F Prerequisite: Math 112, Phscs 121.
Industrial electrical and electronic devices and circuits, including solenoids, relays, motors, and test equipment. Computers, digital communications, and networking.

327. Digital Communications. (3:2:3) F, Sp Prerequisite: IT 104A,B, Math 112, Phscs 123; acceptance to professional program.
Communication systems, wired and wireless. Bandwidth, modulation; Shannon's theorem, telecommunications. Network physical and data link layers (ISO/OSI model). Optics/Coax/Twisted pair; RS 232/Ethernet, Signals/Protocols/Packets; digital communication theory fundamentals.

328. Physical Design of Information Technology Products. (3:2:3) W Prerequisite: IT 104A,B or 314; Phscs 123 or 105; Phscs 107.
Modern physical design of IT devices and products, including desktop and laptop computers, hubs, routers, PDAs, cell phones, etc. Producing a working prototype of a circuit of choice: its enclosure and technical manual, a computer-aided design of a printed circuit board, troubleshooting, breadboard work. Concepts of reliability, including derating, heat, vibration, moisture, and dust. Fee.

344. Operating Systems. (3:2:3) W Prerequisite: C S 235, IT 210, 251B; or instructor's consent; admission to IT professional program.
Applying and using computer operating systems. Configuration, file systems, security, administration, network interfacing, multitasking, multiuser, device driver installation. Analyzing operating system performance. Fee.

346. Integrated Audio/Video Systems. (3:2:3) W alt. yr. Prerequisite: IT 104A,B.
Information technology audio and video components and systems used in home, industry, and education. System design, integration, and automation. Recent digital formats for broadcasting and recording.

347. Computer Networks. (3:2:3) W Prerequisite: C S 236 or concurrent enrollment; IT 210; acceptance to professional program.

Computer networks. Local and wide-area networking for enterprises and service providers. Work groups/routers/hubs/switches; network server administration; Internet protocols and routing; security and privacy. Fee.

350. Database Principles and Applications. (3:2:3) F, Sp Prerequisite: C S 236; IT 210; acceptance to professional program.

Database theory and architecture; data modeling; designing application databases. Query languages, data security, database applications on the Web.

355. Human-Computer Interface. (3:2:4) W Prerequisite: IT 210.

Interface design emphasizing human factors, performance analysis, and cognitive processing. Team-based projects include task analysis, usability studies, environment, interaction, training, and documentation procedures.

391R. Junior/Senior Seminar. (0.5:1:0 ea.) F, W, Sp

Required four times during junior/senior years while in professional program. College Lecture and School of Technology Lecture attendance required.

399R. Academic Internship: Information Technology. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: consent of both department chair and cooperative education coordinator.

Experience in industrial environment. Approved job function supervised by employer and electronics and information technology advisor. Formal technical report required.

431. Digital Signal Processing. (3:2:3) Prerequisite: Math 113, C S 142, IT 241.

Processing engineering data using digital computers. Encoding data for storage or transmission. Frequency-domain techniques for improving signal filtering. Cryptography and other important signals algorithms. Practical experience with DSP processors.

441. Embedded Computer Systems. (3:2:3) Prerequisite: IT 344.

Real-time embedded systems development using microprocessors and microcontrollers. Multitasking, hardware/software interfacing, operating systems, and various CPU architectures.

443. Broadband Communications. (3:2:3) Prerequisite: IT 327.

Physical-layer communications over broadband media. Optical and radio frequency propagation and devices. Fiber optics. Fee.

444. Instrumentation and Computers. (3:2:3) Prerequisite: IT 241, 344.

Design and application of sensors, transducers, and instrumentation. Computer interfacing. Software design for instrumentation. Applications in industrial automation and in embedded systems.

446. Senior Project/Capstone 1. (2:2:1) F Prerequisite: all required 300-level information technology courses; Engl 316.

IT senior project proposal and feasibility studies. Project management, teamwork principles, intellectual property, supplier interactions, identifying and using professional technical literature, oral and written presentations.

447. Senior Projects/Capstone 2. (3:1:5) W Prerequisite: IT 446.

Senior project design and intergration. Second class of two-course sequence. Implementing design. Project management, teamwork, and presentations. Fee.

461R. Current Topics in Information Technology. (3:2:3 ea.) Prerequisite: instructor's consent.

In-depth analysis of current growth areas in information technology. Detailed discussion and lab experience of a few topics from faculty working in the field.

466. Information Assurance and Security. (3:2:3) F, W Prerequisite: IT 344, 347, 350, Stat 332.

Computer security principles. Incident prevention and management. Information assurance dimensions of availability, integrity, authentication, confidentiality, and non-repudiations to ensure transmission, storage, and processing of information.

491R. Senior Seminar. (0.5:1:0 ea.) F 1st blk.

Seminar topics for near-graduation seniors. Information technology work experience required.

492R. Special Problems in Information Technology. (1–3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: information technology senior standing, Engl 316, and an approved project proposal.

Individual study in research and design related to computer-aided process control.

500-Level Graduate Courses (avaliable to advanced undergraduates)

515R. Special Topics in Information Technology. (1–3:Arr.:0 ea.) On dem.

529. Advanced Networking. (3:2:3) W Prerequisite: IT 344, 347; or equivalents.

Analyzing, selecting, configuring, monitoring, and managing computer network equipment. SNMP-based monitoring and control in process of fault isolation and root cause analysis.

531. Encryption and Compression. (3:2:3) Prerequisite: C S 235, Math 112; or equivalents.

Encoding digital data for storage or network transmission using computers. Analyzing and applying algorithms for digital data encryption and compression. Current Web and multimedia standards. Lab emphasizing implementation.

548. Mechatronics. (3:2:3) Prerequisite: IT 444 or instructor's consent.

Synergistic application of mechanical devices, electronic controls, and system principles in design of products and manufacturing processes. Advanced applications of electronic instrumentation, control, and automation in manufacturing systems.

566. Digital Forensics. (3:2:3) W alt yr. Prerequisite: IT 466 or equivalent.

Fundamentals of digital forensics, legal issues, evidence, chain of custody, media analysis, incident response, corporate forensics, and network forensics.

Manufacturing Engineering Technology

Charles Harrell, Chair
265 CTB, (801) 422-6300

Admission to Degree Program

Admission to the manufacturing engineering technology program is open to all BYU students.

The Discipline

Manufacturing is an exciting and rewarding discipline that has significant impact on a society's standard of living and economic independence. At BYU the manufacturing program is specifically oriented toward creating leaders in the industry.

Students in manufacturing learn creative and analytical skills that will enable them to quickly diagnose and solve manufacturing problems with insight from both engineering and management perspectives. They also develop interpersonal and communication skills that will prepare them to work as part of an engineering team and effectively interact with vendors, management, and production personnel. In addition, they receive hands-on training in modern lab facilities and learn to use computers to design, analyze, implement, and control manufacturing operations.

There is an increasing demand for manufacturing professionals who are knowledgeable and skilled in the management, methods, technologies, equipment, and tooling needed to produce quality and affordable products. Such individuals must also be able to effectively coordinate the procurement, installation, and start-up of production equipment as well as improve the productivity of existing operations. Few professions encompass such a broad range of activities and utilize so many skills.

The manufacturing engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700. The program provides students with the option of pursuing either a management track (which confers a minor in business management) or a process track. Students may take their electives in either track to obtain the balance they desire for their career. Graduates may further their technical and managerial skills by pursuing either a master of science in technology or a master of business administration.

Career Opportunities

Career opportunities in manufacturing are plentiful and rewarding. Leaders of industry often have manufacturing backgrounds. Typical entry-level job titles include manufacturing engineer, quality manager, process engineer, tool engineer, product engineer, quality engineer, production supervisor, and account manager (technical sales). New graduates are typically hired into technical positions but have the opportunity to move into management.

The job outlook for manufacturing graduates is bright and should continue to be strong into the future. When one considers that everything that does not exist as part of nature is the product of some form of manufacturing, it is easy to see that manufacturing is an integral part of our society and generates an ever-growing workforce. Progressive companies in industries worldwide are always on the lookout for qualified individuals who can provide leadership in improving the quality and productivity of their manufacturing operations.

General Information

The manufacturing program is designed to provide simple transfer from local feeder schools, including BYU—Idaho, Salt Lake Community College (SLCC), and Utah Valley State College (UVSC). Students transferring from these or other schools should meet with college and program advisors as soon as possible to evaluate transfer credits and plan the student's BYU curriculum.

BS Manufacturing Engineering Technology

(74–77 hours*)

Major Requirements

1. Students must have a minimum of 124 total hours to graduate with this major.
2. Complete the following manufacturing core courses:
   Mfg 130, 220, 230, 331, 340, 355, 391, 431, 434, 479, 480, 485, 491.
3. Complete 3 hours of the following:
   Mfg 399R.
4. Complete the following supporting courses:
   CE En 103, 203.
   Chem 105.
   Engl 316.
   Honrs 331R.
   IT 314.
   Me En 172, 250.
   Stat 332.
5. Complete one of the following options:
   Either Math 112
   Or Math 111, 119.
6. Complete one of the following options:
   Either Phscs 105, 107
   Or Phscs 121.

*Hours include courses that may fulfill university core requirements.

Minor Manufacturing (15 hours)

Minor Requirements

1. Complete the following:
   Mfg 130, 340, 480.
2. Complete two courses from the following:
   Mfg 220, 230, 331, 355.

Manufacturing Engineering Technology (Mfg)

Undergraduate Courses

130. Modern Manufacturing. (3:2:2) W
Methods and characteristics of successful manufacturing engineers and managers. Introduction to engineering and technology, design, and project management. Lab.

201. History of Creativity in the Arts, Science, and Technology 1. (3:3:0) F, Sp
Western civilization from Egyptian antiquity to Renaissance from perspective of changes in civilization enabled by technology. Creativity throughout history. How to improve personal creativity.

202. History of Creativity in the Arts, Science, and Technology 2. (3:3:0) W, Su
Western civilization from Renaissance to present from perspective of changes in civilization enabled by technology. Creativity throughout history. How to improve personal creativity.

220. Material Removal. (3:2:3) F
Methods and procedures to shape materials using basic machine tools; cutting theory, tool selection, metrology methods, and machine operation. Introduction to computer numerical control.

230. Computer-Aided Manufacturing. (3:2:3) W Prerequisite: Mfg 220, Math 111, Me En 172.
Manual and computer-assisted programming of computer numerical controlled (CNC) equipment. Developing CNC programs to manufacture parts for high production.

331. Metals Processes. (4:3:3) F Prerequisite: Me En 250, CE En 203.
Capabilities and applications of common metal-processing methods, including relationships between part design, materials, and process parameters.

340. Quality Systems in Manufacturing. (3:2:3) F, Sp Prerequisite: Stat 332, Mfg 230.
Tools and principles of quality in manufacturing systems. Basic tools, variation, loss function, cost of quality, SPC, DOE, FMEA, and QFD. Comprehensive project in system design to improve quality.

355. Plastics Materials and Processing. (3:2:3) W Prerequisite: Me En 250 or instructor's consent.
Understanding plastic materials, properties, and uses. Survey of plastic-manufacturing processes. Designing plastic products and manufacturing systems.

391. Manufacturing Leadership. (2:1:3) F, W
Lectures on personal and professional development emphasizing internship preparation. Field trips observing different types of manufacturing.

399R. Academic Internship: Manufacturing Practicum. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: second-semester junior standing, Mfg 391R, and faculty authorization.

Working in teams to solve problems encountered in local industry. Project management and reporting under guidance of industry supervisor and department faculty.

431. Tool Design. (3:2:3) F, Sp Prerequisite: Me En 172, Mfg 331.

Designing special tooling for manufacturing processes using solids-modeling design systems.

434. Introduction to Manufacturing Automation. (3:2:2) W, Sp Prerequisite: Phscs 105, CE En 103, Mfg 340.

Sensors, actuators, robotics, part feeding and assembly, PLCs, pneumatic and hydraulic control, justifying automation.

475, 476. (Mfg-Me En) Integrated Product and Process Design 1, 2. (3:2:3 ea.) F, W Prerequisite: senior standing (fewer than 30 hours remaining in the program).

Comprehensive two-semester design experience from conception to manufacturing planning and prototype. Product development process. Economic and manufacturing considerations. Intellectual property assignment agreement required.

479. (Mfg-Bus M) Creating and Managing New Ventures. (3:3:0) F Prerequisite for management majors: Bus M 301, 341, 361; major status. For engineering and technology majors: management minor status; senior status.

Key issues and problems facing managers in start-up companies. Team-taught by professors and entrepreneurs; particularly helpful for students starting businesses.

480. Process Planning and Systems Design. (3:3:0) W, Sp Prerequisite: Mfg 340.

Analyzing product specifications and production requirements for manufacturing. Equipment selection and justification; facility layout and material-handling system design; process-improvement techniques.

485. Capstone: Production Management. (3:1:6) W Prerequisite: Mfg 340, 431, 480.

Production operations: designing a production system, carrying out production functions, and procuring materials from suppliers. Principles of lean operations, project management, and industrial supervision.

490R. Special Problems in Manufacturing Engineering Technology. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: instructor's consent.

491. Professional Seminar. (1:1:0) F Prerequisite: senior standing; Mfg 391.

Lectures on professionalism, leadership, and career and life success.

500-Level Graduate Courses (available to advanced undergraduates)

531. Advanced Computer-Aided Manufacturing Programming. (3:2:3) W odd yr. Prerequisite: previous introductory computer-aided manufacturing programming; senior or graduate status or instructor's consent.

CAD/CAM programming techniques and requirements for manufacturing components on computer numerical-control machine tools, emphasizing CAM programming, postprocessors, and CAM software evaluation.

532. Manufacturing Systems. (3:2:2) F Prerequisite: Mfg 480 or instructor's consent.

Analyzing lean manufacturing systems. Numerous examples and case studies from industry demonstrating principles of lean production, inventory management, and lean distribution. Project with a local company to gain confidence with these principles in an industrial setting.

533. Manufacturing Information Systems. (3:2:3) W Prerequisite: Mfg 480 or instructor's consent.

Applying and integrating software and information technologies in planning, executing, and monitoring production operations.

555. Composite Materials and Processes. (3:2:3) Su Prerequisite: graduate standing or instructor's consent.

Structure, processing, properties, and uses of composite materials, including various manufacturing methods and the relationship between properties and fabrication.

572. Design for Manufacturing. (3:2:2) W Prerequisite: graduate standing or instructor's consent.

Introduction to design evaluation techniques, including design for mechanical assembly, printed circuit board assembly, plastic injection molding, machining, and sheet metal fabrication.

574. Advanced Tool Design. (3:2:3) W even yr. Prerequisite: instructor's consent.

Advanced design of net-shape products utilizing CAD and CAE methods. Plastic injection mold design and construction. Rapid prototyping and injection molding project.

580. Manufacturing Simulation. (3:3:0) F Prerequisite: Mfg 480 or equivalent.

Design and optimization of manufacturing systems using simulation. Simulation languages and modeling methodology.

Graduate Courses

For 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Technology Teacher Education

Steven Shumway, Chair
230 SNLB, (801) 422-6496

The Discipline

Students graduating from the technology teacher education program at Brigham Young University are prepared to teach technological literacy in public secondary schools. To understand the scope, history and core concepts of technology and the effect it has on individuals, society, and the environment, students are required to take courses in visual communications, production technologies, and engineering design. In addition, they are required to take teacher education courses in adolescent psychology, multicultural and exceptional education, classroom management, and teaching methods in preparation for a grade 6–12 teaching certificate. Students engage in field-based experiences teaching at the middle and high school levels throughout the program, culminating with a semester-long student teaching experience.

Career Opportunities

The dramatic pace of technological innovation makes this a vital major. Because the current need for teachers is far greater than the number of available graduates, opportunities for job placement are excellent. Most graduates teach technology-related subjects at the middle and high school level. The degree also provides a strong foundation for numerous technical and teaching careers, including corporate or higher education.

BS Technology Teacher Education (73–74 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or the School of Technology advisor for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following:
   InDes 133A,B.
   TTE 125, 200, 225, 229, 255, 330, 340.
2. After consulting with a School of Technology advisor, complete 18 hours of approved technical emphasis electives in the general areas of visual communication, design and engineering, or production.

   Note: Those students preparing to teach high school should complete 18 hours of technical emphasis in one or a combination of two depth electives (i.e., information technology, electronics, etc.).

   Trade and Technical (T&T) licensure is issued through the Utah State Office of Education. See the USOE application for compliance with the T&T requirements.
3. Complete four registrations of the following:
   TTE 291R.
4. Complete one course from the following:
   Math 110, 111.
5. Complete the Professional Education Component:
   a. Complete the following:
      CPSE 402.
      Sc Ed 350, 353, 379.
      TTE 276R, 377, 378.

      Note: Fingerprinting and FBI clearance must be completed prior to enrolling in TTE 377R.

   b. Complete 12 hours of the following:
      TTE 476R.

*Hours include courses that may fulfill university core requirements.

Technology Teacher Education (TTE)

Undergraduate Courses

125. Technological Systems 1. (3:2:4) F
Teaching communication, information, biological, medical, and environmental systems, with a focus on such communications technologies as networking, printing, Web design, digital photography, video, and animation.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: department chair's and cooperative education coordinator's consent.
Work experience evaluated by supervisor and posted on student's transcript.

200. Studio Methods in Prototyping. (3:2:4) F, W
Theories and practices of prototype construction. Fee.

209. Fundamentals of Electronics Technology. (3:2:4) Independent Study only.
Theory of electricity and electronics; magnetism, DC/AC circuits, semiconductors, and introduction to digital processes for automated systems. Technical reports of lab activities. Fee.

225. Technological Systems 2. (3:2:4) F
Teaching electronic, construction, and transportation systems.

229. Material Properties and Processes. (3:2:4) F, W
Solving real-world problems through layout, measurement, material properties, forming, molding, cutting, fastening, joining, finishing, and fabricating with wood, metal, plastic, and concrete. Fee.

251. Video Production and Nonlinear Editing. (3:2:4) Prerequisite: TTE 125, 255; or instructor's consent.
Teaching video in education to inspire, communicate, and develop creativity. Fundamentals include planning, storyboarding, camera techniques, composition, assembling, and editing video projects.

255. Visual Communication Design. (3:2:4) W Prerequisite: TTE 125 or instructor's consent.
Teaching visual design principles in education. Fundamental skills in digital photo manipulation and illustration for print and World Wide Web.

276R. Exploration of Teaching. (4:Arr.:Arr. ea.) F, W
Field-based initial teaching experience directed at helping prospective teachers understand demands and opportunities associated with teaching secondary students.

291R. Undergraduate Seminar. (0.5:1:0 ea.) F, W
Student leadership training, including organizing and operating student technology education clubs. Required each semester except when enrolled in Sc Ed 476R. College Lecture attendance required.

330. Creativity, Engineering, and Problem Solving. (3:2:4) W Prerequisite: TTE 125, 225, 229; or instructor's consent.
Designing solutions to technological problems using innovation, creativity, experimentation, problem solving, and engineering design. Manufacturing systems; teaching methods and prototype development.

340. Principles of Technology and Engineering. (3:2:4) F Prerequisite: TTE 225.
Teaching technology and engineering concepts in education. Developing problem-solving skills by tackling technological and engineering problems.

350. Multimedia Authoring and Publishing. (3:2:4) W
Developing advanced media authoring skills for teaching interactive design. Solving real-world interactive design problems for the World Wide Web, CD-ROM, and DVD-ROM in an entrepreneurial environment.

377. Teaching Methods in Technology Education. (2:2:0) W 1st blk. Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance.
Developing meaningful and engaging instruction for secondary students in technology education; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378. Practicum in Technology Education. (2:2:0) W 2nd blk.
Implementing meaningful and engaging instruction for secondary students in technology education; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

450. Desktop Publishing. (3:2:3) W
Electronic publishing for print communications: typography, resolution, design, printing, scanning, layout, photo editing, illustration, and prepress readiness. Fee.

476R. Secondary Student-Teaching Internship. (12:Arr.:Arr. ea.) F, W Prerequisite: completion of all course work or departmental approval.
Capstone, field-based, semester-long experience in teaching secondary students; demonstrating proficiency in all program standards. Seminar required. Fee.

490R. Independent Research and Development. (1–3:1:Arr. ea.) F, W, Sp, Su Prerequisite: program supervisor's consent.
Individually preparing technical content associated with selected technological emphases. Fee.

500-Level Graduate Courses (available to advanced undergraduates)

550. Distance Learning. (2:4:0) Su
Developing distance learning environments with multimedia, streaming media, course management systems, and other digital media founded on the principles of "how people learn."

593R. Workshop in Applied Technology Education. (1–2:Arr.:Arr. ea.) F, W, Sp, Su
Teaching and learning technological literacy skills. Reviewing and participating in current technological advances, with a focus on teaching practice and methods. Maximum of 2 credit hours applicable to MS program. Fee.

Graduate Courses

For 600-level courses, see the BYU 2007–2008 Graduate Catalog.

School of Technology Faculty

Professors
Adams, R. Brent (1990) BUS, MFA, U. of Utah, 1992, 1992.
Christensen, Kip W. (1988) BS, MS, Brigham Young U., 1980, 1982; PhD, Colorado State U., 1991.
Gonzales, Ronald F. (1977) BA, MA, California State U., Los Angeles, 1972, 1975; PhD, Purdue U., 1982.
Lunt, Barry M. (1992) BS, MS, Brigham Young U., 1978, 1979; PhD, Utah State U., 1993.
Newitt, Jay S. (1976) BS, MIE, Brigham Young U., 1969, 1972; PhD, Colorado State U., 1980.
Romney, Gordon W. (2004) AB, Princeton U., 1965; PhD, U. of Utah, 1969.
Strong, A. Brent (1986) BA, PhD, U. of Utah, 1967, 1971.

Associate Professors
Burr, Kevin (1999) BS, MEd, U. of Nevada, Las Vegas, 1988, 1990; EdD, Oklahoma State U., 1997.
Campbell, Jeffery L. (1997) BS, Brigham Young U., 1984; MBA, U. of Phoenix, 1990; PhD, U. of Idaho, 1999.
Carter, Perry W. (1980) BS, MS, Brigham Young U., 1973, 1974; PhD, U. of Massachusetts, 1988.
Christofferson, Jay P. (1992) BS, MS, Brigham Young U., 1980, 1992; PhD, Colorado State U., 1996.
Ekstrom, Joseph J. (2001) BS, MS, PhD, Brigham Young U., 1974, 1976, 1991.
Fry, Richard E. (2000) BFA, Brigham Young U., 1989; MFA, U. of Illinois, 1994.
Harrell, Charles R. (1982) BS, Brigham Young U., 1976; MS, U. of Utah, 1982; PhD, U. of Denmark, 1988.
Hawkins, Val D. (1985) BS, Brigham Young U., 1980; MS, Lehigh U., 1986.
Helps, C. Richard (1986) BSc (Eng.), MSc (Eng.), Witwatersrand, South Africa, 1978, 1986.
Howell, Bryan F. (2006) BFA, Brigham Young U., 1987; MFA, U. of Texas, Austin, 2003.
Kohkonen, Kent E. (1970) BS, MS, Brigham Young U., 1968, 1976.
Shumway, Steven L. (1993) BS, Brigham Young U., 1987; MS, PhD, Utah State U., 1993, 1999.
Skaggs, Paul L. (2002) BFA, Brigham Young U., 1980; MFA, Rochester Institute of Technology, 2002.

Assistant Professors
Bailey, Michael G. (2001) BS, Brigham Young U., 1985; MS, U. of Southern California, 1987; PhD, Florida Inst. of Technology, 2000.
Barrett, Jared V. (2001) BS, MS, Brigham Young U., 1996, 1999; PhD, U. of Illinois, Urbana-Champaign, 2003.
Capt, Brian C. (2004) BS, MS, Brigham Young U., 1992, 1993.
Hutchings, D. Mark (1992) BA, Brigham Young U., 1977; MS, U. of Denver, 1992; PhD, Texas A&M U., 2002.
Miles, Michael P. (2001) BS, U. of Idaho, 1989; MS, Ohio State U., 1991; PhD, Ecole des Mines de Paris, 1995.
Miller, Kevin R. (2001) BS, Brigham Young U., 1991; MA, U. of Phoenix, 1995; PhD, Arizona State U., 2001.

Instructors
Fenn, James E. (2006) BS, MS, Brigham Young U., 2003, 2005.
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Allen, Dell K. (1960) BS, Utah State U., 1954; MS, Brigham Young U., 1966; EdD, Utah State U., 1973.
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Grover, Jerry D. (1968) BS, MEd, Utah State U., 1956, 1961; EdD, Brigham Young U., 1968.
Hill, Garth A. (1972) BS, MS, Brigham Young U., 1959, 1969; PhD, Colorado State U., 1979.
Hinckley, Edwin C. (1963) BS, MS, Oregon State U., 1950, 1956; EdD, Colorado State Coll., 1963.
Holt, Ivin L. (1963) BS, Brigham Young U., 1957; MEd, Pennsylvania State U., 1958; EdD, Arizona State U., 1972.
Johnson, A. Kent (1991) BSEE, Brigham Young U., 1960: MSEE, New York U., 1962; DSc, Steven Inst. of Technology, 1965.
Jenkins, Ronda H. (1949) BS, MA, Brigham Young U., 1955, 1966.
Marshall, John F. (1971) BFA, MA, Brigham Young U., 1966, 1968.
Martin, Loren (1982) BS, Brigham Young U., 1965; MS, Stout State U., 1966; EdD, Utah State U., 1973.
Mather, C. Glayd (1974) BS, MS, Utah State U., 1964, 1965.
McArthur, Ross J. (1956) AS, Dixie Coll., 1943; BS, MS, Utah State U., 1949, 1953; EdD, U. of Missouri, Columbia, 1955.
McKell, William E. (1970) BS, Utah State U., 1948; MEd, Texas A&M U., 1951; EdD, Utah State U., 1970.
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Owen, Earl F. (1982) BS, MS, U. of Utah, 1970, 1972.
Rogers, Leon R. (1981) BS, Utah State U., 1978; BS, Weber State U., 1978; MS, Colorado State U., 1981; PhD, Texas A&M U., 1989.
Smart, Merrill J. (1967) BS, Brigham Young U., 1959; MS, U. of Utah, 1962.
Stout, W. Douglas (1969) BFA, U. of Utah, 1958; MS, Illinois Inst. of Technology, 1961; PhD, U. of Utah, 1977.
Tolman, Wilford J. (1960) BS, MS, Brigham Young U., 1960, 1964.
Weidman, Brent H. (2003) BS, Utah State U., 1969; MS, Texas A&M U., 1970; PhD, Colorado State U., 1992.

Thai

See Center for Language Studies.

Theatre and Media Arts

Rodger Sorensen, Chair
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College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777

Admission to Degree Program

Several degree programs in the Department of Theatre and Media Arts have a departmental application process with enrollment limitations. Theatre arts studies major and minor programs have declaration procedures but are open enrollment. Please see the college advisement center for specific details (1-877-890-5414).

The Discipline

The study of theatre and media arts is truly a study of humankind and our attitudes toward ourselves as revealed in artistic expression. Since art is a mirror of human society, the specific disciplines of theatre and media arts cover our innermost attempts at comprehending our existence through all time.

The BYU theatre program is designed to educate students in a basic foundation of dramatic literature, theatre history, theory, performance skills as both actor and director, and techniques in all areas of theatre design technology and production.

The BYU media arts program is designed to educate students in a basic foundation of film history, theory, and criticism, along with the fundamental production competencies in film, television, animation, or interactive multimedia.

Mission Statement

TMA exists to fulfill both the mission of BYU "to assist individuals in their quest for perfection and eternal life" and The Aims of a BYU Education, which "should be (1) spiritually strengthening, (2) intellectually enlarging, and (3) character building, leading to (4) lifelong learning and service." We work toward these ends by promoting literacy, spirituality, and creativity and by exploring their interrelatedness in the arts of theatre and media.

- *Literacy* means for us the ability to "read"—that is, to apply the vocabulary and grammar, theoretical models, history, and analysis of theatre and media in order to (1) read multiple meanings and (2) appreciate, evaluate, and respond to them.
- *Spirituality* consists of discovering, exploring, and balancing the interrelationships among the individual, others, and Deity.
- *Creativity* means synthesizing in new ways and illuminating human understanding through performance and production.

We promote literacy, spirituality, and creativity in the arts of theatre and media by emphasizing such central elements as

- the truths of human experience,
- generosity of soul,
- a service orientation and focus on others,
- commitment to developing infinite potential, and
- awareness.

In promoting literacy, spirituality, and creativity in theatre and media arts, we balance the skills and demands of

- thinking—both creative and critical—
- collaborative mentored processes, and
- production.

—Adopted October 7, 2003

Career Opportunities

The theatre program provides training and experience in all areas of theatre, from performing to playwriting, from teaching to technical production.

The media arts program provides a foundation and basic experience in analyzing, conceptualizing, writing, directing, and collaboratively producing nonfiction, narrative, and interactive media. For skill development and specialization, students may select an area of study from the following: critical studies; film, documentary, or television and radio producing and directing; screenwriting; or interactive multimedia.

For an area of interest study list, contact the advisement center or the department office.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Media Arts Studies
BA	Theatre Arts Education
BA	Theatre Arts Studies
BFA	Acting
BFA	Animation
BFA	Music Dance Theatre
Minors	Media Arts Studies
	Theatre Arts Education
	Theatre Studies

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Theatre and Media Arts
MFA	Production Design

For more information see the BYU 2007–2008 Graduate Catalog.

Animation—Additional Degree Program Offered

The BFA in animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the Department of Theatre and Media Arts, the Department of Visual Arts, and the Ira A. Fulton College of Engineering and Technology's School of Technology. Please see the Visual Arts section of this catalog for degree requirements, or go to the College of Fine Arts and Communications Advisement Center for more information about entrance requirements to this program.

General Information

1. All theatre majors—BFA acting and music dance theatre (MDT), theatre education, and theatre arts studies—should register as pretheatre in order to receive a major card that will enable students to attend theatre season performances.
2. The theatre arts studies major is an open enrollment program. See program description for details on declaring this major.
3. For all limited enrollment programs —animation, BFA acting, MDT, media arts, and theatre education—students are required to fulfill particular premajor requirements. See individual program description below for details. Application must be made for entrance into the chosen degree program.

BA Media Arts Studies (49–51 hours*)

The media arts studies program produces students with a strong liberal arts foundation that can be used effectively in a variety of film-related careers or graduate studies. Graduates are generalists with skills and proficiencies that can be used in multiple venues including emerging media environments. Students master knowledge of film culture, history, and theory; develop general and specialized skills sets; and utilize processes that integrate professional practices, generate creative applications to new situations, and support collaboration in multiple settings. Core curriculum of critical studies develops analytical skills and creates a foundation for application and experimentation; a wide range of electives allows additional emphasis in critical studies, narrative or documentary production, or other specialized areas.

Major Requirements

1. Complete the following pre–media arts courses with a B grade or better:
   TMA 102, 112.
2. Be admitted to the program by application. (See the department office, D-581 HFAC.)
3. Complete the following foundation courses:
   TMA 105, 114, 185.
4. Complete the following media arts core courses:
   TMA 291, 292, 293, 391.
5. Complete one of the following advanced critical studies courses:
   TMA 457, 477R, 492R, 494, 497, 498R.
6. Complete 22–24 hours (14 must be upper-division) from faculty advisor-approved courses in an area of study. These areas of study must be approved in writing by the student's faculty advisor before enrollment occurs. Please contact the department for possible study areas. Up to 8 hours of practica can be used to fill this requirement.

*Hours include courses that may fulfill university core requirements.

BA Theatre Arts Education (71 hours*, including licensure hours)

The theatre arts education degree program is designed to prepare students to become creative teachers who can meet the educational needs of secondary school theatre students. The skills the program emphasizes include, but are not limited to, interpersonal communication, social, life, acting, directing, writing, historical/analytical, and design/production skills. In addition to developing highly skilled educators, the program is designed to develop strong directing and production skills in each prospective high school teacher.

Major Requirements

1. A teaching minor is not required for licensure. However, it is strongly recommended.
2. Complete the following pre-theatre courses with a B grade or better:
   TMA 101 or 102; 160.

   Note: TMA 102 is strongly recommended to enhance media literacy.
3. Be admitted to the licensure program by application during Sc Ed 276R (see the department office, D-581 HFAC).
4. Complete the following foundation courses:
   TMA 114, 123, 236.
5. Complete the following theatre core courses:
   TMA 201, 202, 260R, 360R, 395, 396.
6. Complete the following major courses:
   TMA 266, 267, 336, 368, 377A,B, 379, 436.

   Note: Fingerprinting and FBI clearance must be completed before registration for TMA 377A,B.
7. Complete 6 hours from the following or other faculty advisor-approved courses:
   TMA 122, 124, 127, 222, 225, 229, 324, 361, 424, 457.
8. Complete the following Professional Education Component:
   a. Complete the following:
      CPSE 402.
      IP&T 286.
      Sc Ed 276R (3 hours), 350, 353.
   b. Complete 12 hours of the following:
      Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

BA Theatre Arts Studies (49 hours*)

The theatre arts studies major is an open enrollment program that provides a strong liberal arts foundation that can be used effectively in a variety of performance-related careers or graduate studies. The major provides practical training, critical thinking skills, and the development of professional ethics across the various performance disciplines. Students may focus studies in areas of interest—critical studies and dramaturgy, design and technology, directing and stage management, playwriting, or theatre for young audiences—but graduates are generalists with skills and proficiencies that can be used in multiple production venues and media environments.

Major Requirements

1. Complete the following prerequisite courses:
   TMA 101 or 102; 112, 160.
2. Complete and submit declaration form for the theatre studies major to the college advisement center (D-444 HFAC).
3. Complete the following foundation courses:
   TMA 114, 123, 236.
4. Complete the following theatre core courses:
   TMA 201, 202, 260R, 360R, 395, 396.
5. Complete one course from the following:
   TMA 412, 460.
6. Complete 20 hours (12 must be upper-division) in consultation with the faculty mentor. These individually tailored programs will allow the student maximum flexibility while guaranteeing quality control.

*Hours include courses that may fulfill university core requirements.

BFA Acting (81.5–82.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this program.

The acting degree program was developed for students who are committed to acting as a career. It is focused to better prepare them to compete professionally and/or for admission to advanced acting conservatory programs or graduate work.

Major Requirements

1. Successfully pass a preliminary audition and a final acceptance audition. These auditions are held at the end of each fall and winter semester.
2. Complete the following pre-theatre courses with a B grade or better:
   TMA 101 or 102; 112, 160.
3. Complete the following foundation courses:
   TMA 114, 128, 236.
4. Complete the following core courses:
   TMA 201, 202, 260R, 360R.
5. Complete the following major courses:
   Acting:
   TMA 124, 223, 224, 229, 324, 424, 427.
   Voice:
   Music 161.
   TMA 122, 222, 322, 422.
   Movement:
   Dance 140 or 240.
   TMA 125, 127, 225, 325.
   Support skills:
   TMA 267.
   Performance:
   TMA 399R or 496R (1 hour minimum); 410R (3 hours minimum).
6. Complete the following:
   TMA 421, 491.
7. Complete the following:
   TMA 469.
8. Complete 12 hours from the following or other approved courses:
   Music 259.
   TMA 102, 185, 220R, 241, 251, 315R, 329, 336, 341, 351, 367, 395, 396, 420R, 423, 425, 429, 436, 443R.

* Hours include courses that may fulfill university core requirements.

BFA Music Dance Theatre (76.5 hours*)

This is a limited-enrollment program requiring program admissions approval. Please see the College of Fine Arts and Communications Advisement Center for information regarding requirements for admission to this major.

The BFA in music dance theatre (MDT) is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of its School of Music and Department of Theatre and Media Arts and the College of Health and Human Performance's Department of Dance.

Major Requirements

1. Live and taped auditions for entrance into the MDT major are held in the January preceding fall registration. Students may begin the MDT major in the fall only.
2. Pass a proficiency examination in each of the three areas at the end of each semester.
3. Complete at least 40 hours in residence at BYU.
4. Any grade below C– in major courses is not acceptable for graduation. Dance technique courses require a grade of B– for advancement to the next level.
5. Complete the following:
   Music 113, 161, 261, 290.
6. Complete 4 hours of the following:
   Music 260R.
7. Complete 4 hours of the following:
   Music 360R.
8. Complete the following:
   Dance 131, 135, 231, 235, 241R, 243R, 244R, 290, 291R, 331, 361, 390R.
9. Complete the following:
   TMA 114, 121, 123, 124, 223, 229, 267, 421, 427.
10. Complete the following MDT Seminar courses:
    Music 328.
    Dance 328.
    TMA 328.
11. Complete the following History of Music Dance Theatre courses:
    Music 300.
    Dance 300.
    TMA 300.
12. Complete the following Senior Performance Project courses:
    Music 426.
    Dance 426.
    TMA 426.
13. Complete 9.5 hours of electives from the following music, dance, or theatre courses.
    Music 186, 319R, 360R, 363, 386R, 399R, 402A,B, 472.
    Dance 335, 340R, 362, 363, 368R, 390R, 391R, 393R, 399R, 429R, 440R, 462, 468R, 490R, 494R, 495R, 498R, 540R, 562R, 563R.
    TMA 100, 215R, 223, 224, 225, 236, 322, 324, 325, 329, 336, 399R, 420R, 422, 424, 425, 429 443R, 515R.

*Hours include courses that may fulfill university core requirements.

Minor Media Arts Studies (23 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following with a B grade or better:
   TMA 102, 112.
2. Be admitted to the minor program by application (see department office, D-581 HFAC).
3. Upon acceptance into the minor program, complete the following:
   TMA 105, 114, 185.
4. Complete one course from the following:
   TMA 291, 292, 293.
5. Complete 3 hours from the following advanced critical studies courses:
   TMA 457, 477R, 492R, 494, 497, 498R.
6. Complete 5 hours of electives from the following:
   TMA 274, 277R, 293, 295, 370R, 384R, 387, 391, 392, 492R, 494, 497, 498R (these 400-level courses may not be used if taken to fill item 5 above).

*Hours include courses that may fulfill university core requirements.

Minor Theatre Arts Education (33 hours)

Minor Requirements

1. Complete the following with a B grade or better:
   TMA 101 or 102; 160.

2. Apply for entrance approval from the theatre and media arts education committee.
3. Complete the following:
   TMA 123, 201, 202, 236, 267, 336, 377A,B, 379, 436.
4. Complete one course from the following:
   TMA 266, 368.
5. Complete one course from the following:
   TMA 395, 396.

Minor Theatre Studies (21–22 hours)

Minor Requirements

1. Complete the following prerequisite courses:
   TMA 101 or 102; 112, 160.
2. Complete and submit declaration form for the theatre studies minor to the college advisement center (D-444 HFAC).
3. Complete the following core courses:
   TMA 114, 201, 202.
4. Complete one course from the following:
   TMA 123, 236, 251, 352, 480.
5. Complete one course from the following:
   TMA 260R, 360R.
6. Complete one course from the following:
   TMA 395, 396.

Theatre and Media Arts (TMA)

Undergraduate Courses

100. Introduction to Visual Literacy. (3:2:2)
Overview of visual communication, with hands-on experience in multimedia design and tools, structured to increase awareness of visual functions and develop beginning proficiency with computer-assisted visual communications.

101. Introduction to the Theatre. (3:3:1)
Reading, viewing, analyzing, writing about, and interacting with contemporary plays and performances to explore both theatre fundamentals and ways theatre addresses questions and concerns of our time. Lab required.

102. Introduction to Film. (3:4:2)
Analytical studies for understanding and appreciating media forms and messages, as well as basic history, theory, and aesthetics. Lab required.

105. Using Basic Media Tools. (1:1:1) Prerequisite: media arts major or minor status or pre–animation major status; concurrent enrollment in TMA 185.
Introductory course to familiarize students with basics in camera, lighting, and sound fundamentals.

110. Media Arts Experience. (1:0:4) Prerequisite: premajors only.
Practical introductory experience working in media environments (including film and broadcast facilities).

112. Collaboration, Research, and Visualization. (2:4:0)
Overview and practical applications of principles of collaboration, research, and visualization as essential elements of appreciation and production of theatre and media arts projects.

114. Reading and Constructing Narratives. (3:3:3) Prerequisite: TMA 101 or 102; 112 or Sc Ed 276R.
Analyzing basic narrative principles; conceptualizing and writing narratives for theatre and media.

121. Voice and Diction. (2:3:1) Prerequisite: MDT or theatre arts studies major status or instructor's consent.
Skills involved in producing an effective voice; International Phonetic Alphabet. Lab required.

122. Voice Production. (2:3:1) Prerequisite: pre-BFA acting major or theatre education major status or instructor's consent.
Exercises to aid in freeing tensions, habits/patterns, and finding natural state of the voice. Lab required.

123. Acting Fundamentals. (2:4:1) Recommended: concurrent enrollment in TMA 122, 125.
Fundamental acting skills: exercises in perception, objective/action, thought processes, scoring of scripts. Lab required.

124. Acting. (3:6:0) Prerequisite: TMA 114, 123. By audition only. Acting BFA majors: recommended concurrent enrollment in TMA 127, 222.
Integrating acting skills; building a character through exercises and scene work.

125. Yoga and Alexander Technique. (1:2:0) Prerequisite: pre-BFA acting major status or instructor's consent.
Techniques of relaxation, breath, focus, and posture to enhance actor's body and voice as a whole integrated tool in performance.

127. Beginning Stage Combat. (1:2:0) Prerequisite: BFA acting major status or instructor's consent.
Basic hand-to-hand stage combat instruction. Introduction to tumbling and falls.

128. Acting Fundamentals: BFA Track. (3:6:1) Prerequisite: pre-BFA acting major status or instructor's consent. Recommended: concurrent enrollment in TMA 122, 125.
Fundamental acting skills: exercises in perception, objective/action, thought processes, scoring of scripts. Lab.

150. Public Speaking. (3:3:0)
Principles and methods of public speaking; speaking experiences.

160. Theatre Production 1. (1:2:2)
Practical experience in the scene shop, costume shop, and lighting lab. Hands-on training for further production experience.

174. Electronic News Gathering. (3:3:0) Prerequisite: communications major status or instructor's consent.
Principles and techniques for electronic news gathering for broadcast journalism applications.

185. Basic Media Production. (3:4:0) Prerequisite: media arts major/minor status or animation major status; concurrent enrollment in TMA 105.
Introduction to basics of film and video production. Includes lecture and practical lab experiences with audio and video.

187. Production Management: Beginning. (3:3:3) Prerequisite: TMA 102, 112.
Fundamentals of media production: budgeting, scheduling, and management skills.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: major status, TMA 114. By application only.
Off-campus experience or internship in theatre and media arts.

201. Dramatic Performance: Antiquity to Renaissance. (3:3:0)
Civilization from Greek antiquity through Renaissance, primarily from perspective of dramatic literature and performance. Ways in which performance functions within particular socioeconomic, political, religious, and aesthetic perspectives.

202. Dramatic Performance: Renaissance to the Present. (3:3:0)
Civilization from Renaissance through present, primarily from perspective of dramatic literature and performance. Ways in which performance functions within particular socioeconomic, political, religious, and aesthetic perspectives.

212R. Forum. (0.5:1:0 ea.)
Lecture and question-and-answer sessions with industry professionals and scholars.

215R. Workshop 1: Special Projects. (1–6:0:Arr. ea.)
Special projects in theatre and media arts.

220R. Workshop 1: Acting. (1–3:0:Arr. ea.) Prerequisite: instructor's consent.
Experience in production: acting.

222. Phonetics. (2:3:1) Prerequisite: pre-BFA acting major status or instructor's consent; TMA 114, 122.
Correct use of Standard American Stage Dialect with International Phonetic Alphabet. Identification of speech/articulation problems.

223. Acting Improvisation. (2:4:0) Prerequisite: BFA acting or MDT, theatre educaton, or theatre arts major status; TMA 114, 123, 124. By audition only. Acting majors: recommended concurrent enrollment in TMA 222, 224, Dance 140R.
Discovery of emotion, thought process, and impulse through improvisation.

224. Acting for Film and TV. (3:6:Arr.) Prerequisite: BFA acting or MDT, theatre education, or theatre arts major status; TMA 114, 123, 124. By audition only. Acting majors: recommended concurrent enrollment in TMA 222, 223, Dance 140R.
On-camera techniques for features, sitcoms, industrials, and commercials. Lab required.

225. Neutral Mask. (2:2:0) Prerequisite: BFA acting or MDT, theatre education, or theatre arts major status; TMA 114, 123, 125. By audition only.
Use of masks in teaching specificity of movement, communication, and emotion.

229. Musical Scene Study. (3:6:0) Prerequisite: major status; TMA 114, 123, 124. By audition only. BFA acting majors: TMA 123, 124, Music 161, Dance 140. Recommended for BFA acting or MDT majors: concurrent enrollment in TMA 225.
In-depth study of two genres of musical theatre; text analysis, research, written assignments.

236. Directing Fundamentals. (2:2:1) Prerequisite: TMA 114 or instructor's consent (except theatre education majors).
Fundamental elements of stage and media directing, including observation, collaboration, imagination, casting, working with actors, camera, spaces, words, images, rehearsals, and final product.

241. Screenwriting 1. (3:4:0) Prerequisite: TMA 291 or 292 or concurrent enrollment; animation majors: TMA 294.
Basic narrative and nonfiction (documentary, educational, industrial, multimedia) screenwriting principles through reading, viewing, testing, and completing writing assignments.

251. Playwriting 1. (3:4:0)
Basic playwriting principles through reading, completing writing assignments, testing, and writing the first draft of a one-act play.

260R. Theatre Production 2. (1:0:4 ea.) Prerequisite: TMA 160 or instructor's consent.
Practical experience in specialized shops or backstage experience on realized productions.

262. Costume Design 1. (2:4:0) Prerequisite: TMA 101 or 102; 112, 114, 160.
Costume history, rendering, and theory. Assistant costume designers for departmental productions may be selected from students enrolled in this course.

263. Scenic Design 1. (2:4:0) Prerequisite: TMA 101 or 102; 112, 114, 160.
Basic approaches to scenic design. Perspective drawing, rendering, models, and computer graphics. Assistant designers for departmental productions may be selected from students in this course.

264. Lighting Design 1. (2:4:0) Prerequisite: TMA 101 or 102; 112, 114, 160.
Basic approaches to lighting design. Plot, maintenance, and board operation. Assistant designers for main season productions may be selected from students enrolled in course.

265A. Costume Construction 1: Flat Patterns. (2:4:0) Prerequisite: TMA 101 or 102; 112, 160.
Basic skills in flat pattern making. Specific projects for departmental productions will be assigned to students enrolled in this course.

265B. Costume Construction 1: Draping. (2:4:0) Prerequisite: TMA 101 or 102; 112, 160.
Basic skills in drape-drafting patterns. Specific projects for departmental productions will be assigned to students enrolled in this course.

266. Set Construction 1. (2:4:0) Prerequisite: TMA 101 or 102; 112, 160.
Intermediate skills in scenic construction and stage maintenance.

267. Makeup 1. (2:4:1)
Elementary techniques in makeup application for film, television, and stage. Lab work on main season productions is required.

273. Digital Media Storytelling for Broadcast. (3:1:3) Prerequisite: TMA 185 or communications major status.
Principles and techniques of media production, information gathering, conceptualizing, and storytelling for broadcast production.

274. Nonfiction Production. (3:3:0) Prerequisite: TMA 185; 293 or concurrent enrollment.
Fundamental principles of documentary and experimental filmmaking. Lecture, discussion, lab, and individual/group experiences and critiques.

277R. Television Studio Production. (3:2:3 ea.) Prerequisite: TMA 174 or 273R.
Principles and techniques for creating live and taped studio production of news, music, and drama. Lab required.

285. Production: Intermediate. (3:3:3) Prerequisite: major status; TMA 185, 187; 291 or 292.
Survey and application of the basics of narrative and nonfiction, including 16-mm film. Lecture, discussion, lab, and individual/group experiences and critiques. Fee.

291. Media Arts History 1. (3:3:0) Prerequisite: TMA 114.
Survey of social, aesthetic, business, and technical dimensions of film and media from 1895 to 1945.

292. Media Arts History 2. (3:3:0) Prerequisite: TMA 114.
Survey of social, aesthetic, business, and technical dimensions of film and media from 1946 to present.

293. History of Documentary and Nonfiction Film. (3:Arr.:0) Prerequisite: media arts major/minor status; TMA 114.
Introduction to and contextualization of documentary film from its inception to present.

294. History of Animation. (3:3:0) Prerequisite: TMA 102.
Origins and developments of animation internationally to the present, focusing on aesthetic, technical, political, and economic aspects of the medium.

295. History of the Moving Image. (3:3:0) Prerequisite: TMA 102.
Origins and development of the moving image in the twentieth and twenty-first centuries as revealed in television-as-art/entertainment and/or multimedia focusing on social contexts.

299R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status, theatre or media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

300. History of Music Dance Theatre. (1:3:0) Prerequisite: MDT major status; Music 290, Dance 243R, 244R, TMA 114; concurrent enrollment in Dance 300, Music 300. Recommended: concurrent enrollment in Music 328, Dance 328, TMA 328.
Theatre in the Western tradition from classical antiquity to present, emphasizing union of music, dance, and theatre.

315R. Workshop 2: Special Projects. (1–3:0:Arr. ea.)
Intermediate projects in theatre or media arts.

319. Advanced Narrative Production. (3:4:0) Prerequisite: TMA 241, 285. By application only. Recommended: TMA 123.
Preproduction and production of short projects, including digital and 16-mm sound film in narrative form. Discussion, lab, and individual/group experiences and critiques. Fee.

322. Classical Voice. (2:4:0) Prerequisite: BFA acting or MDT major status. BFA acting majors: TMA 114, 122, 123, 124, 222. MDT majors: TMA 114, 121, 123, 124. By audition only.
Speech techniques (word stress, inflection, pitch, pace, etc.) applied in the classical play.

324. Acting Classics. (3:6:0) Prerequisite: BFA acting or MDT major status. BFA acting majors: TMA 114, 122, 123, 124, 222; recommended: concurrent enrollment in TMA 322, 325. MDT majors: TMA 114, 121, 123, 124. By audition only.
Acting skills helpful in classical literature, emphasizing Shakespearean scansion and text analysis.

325. Stage Combat. (2:4:2) Prerequisite: acting major status or instructor's consent; TMA 114, 125, 127, 225.
Skills of safe hand-to-hand combat, including use of rapier, dagger, and broadsword, for stage and screen.

327. Performance for Broadcast. (2:2:5) Prerequisite: TMA or communications (print and electronic journalism) major status or instructor's consent; TMA 121, 123, or communications major status.
Practice and theory presenting materials for documentary, news, educational broadcasts, and other venues. Lab required.

328. Junior Music Dance Theatre Seminar. (1:2:4) Prerequisite: MDT BFA major status; TMA 114, 229; concurrent enrollment in Dance 328, Music 328. Recommended: concurrent enrollment in Music 300, Dance 300, TMA 300.
Intensive integration of music, dance, and theatre for the performer.

329. Theatre and Film Acting Conservatory. (3:6:Arr.) Prerequisite: TMA 114, 122, 123, 124, 224. By audition only.
Extensive work on a theatre or film project through semester, culminating in performance of play or preview of film/video.

330R. Assistant Directing. (2:0:9 ea.) Prerequisite: theatre arts foundation courses; TMA 336.
Assisting directors for departmental productions.

331. Directing Narrative Literature. (3:3:1) Prerequisite: TMA 114.
Theory and practice of adapting, directing, and performing nondramatic literature. Readers Theatre.

336. Directing Principles and Practices. (3:4:1) Prerequisite: theatre arts majors: TMA 114, 236. Media arts majors: TMA 105, 114, 185.
Theories and processes of taking a scene from script to production.

341. Screenwriting 2. (3:3:0) Prerequisite: major status; TMA 241. By application only.
Intermediate conceptualization, screenwriting, and development for narrative or nonnarrative projects.

350R. Play Review. (1:1:0 ea.) Prerequisite: TMA 114 or instructor's consent.
Reading, analyzing, discussing, and writing reviews of new scripts for young audiences.

351. Playwriting 2. (3:4:0) Prerequisite: TMA 114, 251.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing the first draft of a full-length play.

352. Drama in the Elementary Classroom. (2:2:2)
Using theatre techniques as a tool to enrich all subject matter taught in the elementary school classroom. Puppetry, improvisation, storytelling, etc.

360R. Theatre Production 3. (1:0:4 ea.) Prerequisite: TMA 160 or instructor's consent.
Advanced practical experience in specialized shops or backstage experience on realized productions.

361. Stage Management 1. (2:2:2) Prerequisite: theatre arts foundation courses.
Principles and objectives of stage management. Assistant stage managers for departmental productions will be selected from students enrolled in this course.

362. Costume Design 2. (2:4:0) Prerequisite: TMA 114, 262.
Art approaches to costume design. Assistants and production designers for departmental productions may be selected from students enrolled in this course.

363. Scenic Design 2. (2:4:0) Prerequisite: TMA 114, 263.
Art approaches to scenic renderings, models, and computer graphics. Assistants and designers for departmental productions may be selected from students enrolled in this course.

364. Lighting Design 2. (2:4:0) Prerequisite: TMA 114, 264.
Art approaches to renderings and plots. Advanced computer graphics. Assistants and designers for departmental productions may be selected from students enrolled in this course.

366. Production Drafting. (2:2:2)
Hand drafting principles as used in scenic and production design. Theoretical projects that include industry standards for drawing, building, and presenting.

367. Makeup 2. (2:4:1) Prerequisite: TMA 267.
Advanced techniques in makeup and introduction to prosthetics. Supervision on departmental productions required. Assistant designers will be selected from this course.

368. Scenic Art. (2:4:0) Prerequisite: theatre arts foundation courses.
Basic approaches to painting and finishing scenic elements. Priming, lay-in, texturing, and effects. Possible work painting on departmental productions.

369R. Design and Technology Projects. (1–4:Arr.:Arr. ea.) Prerequisite: theatre arts foundation courses and instructor's consent.
Practical experience working as main season assistant designers; related topics.

370R. Practicum: Interactive Multimedia. (2:2:6 ea.)
Skills in and practice with current IMM tools.

372R. Media Collaboration. (1–3:Arr.:0 ea.) Prerequisite: major status; TMA 114; by application only.
Experience collaborating with senior capstone media arts experience.

377A,B. Teaching Methods and Instruction. (2:2:1 ea.) Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance.
Developing meaningful and engaging instruction for secondary students in theatre; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

378R. Producing and Directing Television Studio Productions. (3:2:3 ea.) Prerequisite: media arts or communications major status; TMA 277R.
Directing techniques in creating electronic images and sound for live dissemination. Lab required.

379. Classroom Management. (2:2:1) Prerequisite; Sc Ed 276R; TMA 377A,B.
Current theory, research, and application in classroom management; creating positive teacher-student and peer relationships, developing optimal learning environments.

384R. Practicum: Special Topics in Media Arts. (1–6:Arr.:1 ea.)
Fundamentals of special media skills.

386. Marketing and Distribution for Film, Video, and Multimedia. (3:3:1)
Survey of vocabulary, players, skills (negotiating, documenting, business processes) of marketing and distribution in film, video, and multimedia.

387. Production Management: Advanced. (3:3:1) Prerequisite: media arts major status; media arts foundation courses; TMA 187.
Overview of techniques for managing large arts projects, involving individual and team projects.

388R. Media Arts Crew. (1–3:0:Arr. ea.) Prerequisite: TMA 114, 185. By application only.
Practical supervised experience in media arts production. Exposure to protocols, as well as organizational and technical aspects.

389R. Producing Symposium. (3:3:0 ea.) Prerequisite: media arts major status; TMA 114. By application only.
Developing organizational skills by workshop meetings with industry professionals, who share their producing experiences, styles, and strategies.

391. Introduction to Media Arts Theory. (3:6:0) Prerequisite: TMA 291 or 292.
Identifying and analyzing contemporary film and media theories, with application to specific media texts.

392. Children's Media. (3:3:0)
Historical and theoretical survey of media for and about children and the literature that informs it; discussions and strategies relating to production, reception, pedagogy, and parenting.

394. Conceptualizing Nonnarrative Forms. (3:3:2) Prerequisite: media arts major status; TMA 274.
Advanced readings and practical applications of various nonfiction forms.

395. Dramatic Literature 1. (3:3:0) Prerequisite: TMA 114, 201, 202.
Survey of dramatic texts, from ancient Greek to today, through Western literary theories, emphasizing performance.

396. Dramatic Literature 2. (3:3:0) Prerequisite: TMA 114, 201, 202.
Survey of dramatic texts, from ancient Greek to today, through global literary theories, emphasizing performance.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status; theatre or media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

410. Acting Capstone. (2–4:Arr.:Arr. ea.) Prerequisite: BFA acting major status. By audition only.
Participation in a final acting project on the BYU main-stage season.

412. Theatre Capstone. (2:Arr.:Arr. ea.) Prerequisite: TMA 395 or 396 or concurrent enrollment with instructor's consent.
Capstone theatre arts studies experience. Résumés, cover letters, job searches, and professional portfolio preparation. Analyzing interrelationships of ethical, aesthetic, and theological dimensions of creating performance.

415R. CAD for Theatre and Media Arts. (1:2:2 ea.)
CAD training in scenic, lighting, and production design. Course alternates between drafting and 3D software.

419A. Advanced Narrative Direction A. (3:3:0) Prerequisite: TMA 319. By application only. Recommended: TMA 123.
Working with actors; visual expression; artistic identity. Creating an advanced portfolio. Discussion, lab, individual/group experience and critiques.

419B. Advanced Narrative Direction B. (1–3:Arr.:Arr.) Prerequisite: TMA 419A. By application only.
Working with actors; visual expression; artistic identity. Creating an advanced portfolio. Discussion, lab, individual/group experience and critiques.

420R. Performance Workshop 2. (1–3:0:Arr. ea.) Prerequisite: instructor's consent.
Advanced experience in production: acting.

421. The Business: Marketing Yourself as a Performer. (1:1.5:0) Prerequisite: BFA acting or MDT major status; TMA 114; instructor's consent.
Business aspects of the entertainment industry, including telephone interviews with entertainment industry personnel. Required research project.

422. Dialects. (2:4:1) Prerequisite: BFA acting major status or instructor's consent; TMA 114, 122, 123, 124, 222. By audition only.
Major stage dialects.

423. Comedy Styles. (3:6:0) Prerequisite: BFA acting major status or instructor's consent; TMA 114, 122, 123, 124, 125, 222, 223, 225, Dance 134. By audition.
Concepts and techniques that create comedy. Major comedic styles throughout history and their impact on currently produced works.

424. Advanced Acting. (3:6:0) Prerequisite: BFA acting or MDT major status. Acting majors: TMA 114, 122, 123, 124, 222; recommended: concurrent enrollment in TMA 422. MDT majors: TMA 114, 121, 123, 124. By audition only.
Scene studies in extended realism. Absurdism, American classics, Shaw, Chekhov, etc.

425. Character Mask. (2:4:0) Prerequisite: BFA acting major status; TMA 114, 123, 124, 125, 223, 225. By audition only.
Use of the body as a primary tool for character and script interpretation.

426. Music Dance Theatre: Senior Performance Project. (1:0:5) Prerequisite: MDT major status; TMA 361; concurrent enrollment in Music 426, Dance 426.
Participation in an MDT performance group culminating in a showcase for agents and directors in New York City during April.

427. Auditions. (3:6:0) Prerequisite: BFA acting or MDT major status. By audition only. MDT majors: Dance 114, 240, TMA 121, 123, 124, 229, 324 (or 424). Acting majors: Dance 140, Music 161, TMA 114, 122, 123, 124, 125, 222, 225, 229, 324, 424. Recommended concurrent enrollment in TMA 425.
Auditions, cold reading, resumés, and the business end of acting, music, and dance for the professional performer.

429. Performance: Recital. (3:2:4) Prerequisite: BFA acting or MDT major status. By audition only. MDT majors: TMA 114, 121, 123, 124, 229, 324 (or 424). Acting majors: TMA 114, 122, 123, 124, 222, 229, 324, 424.
Thirty- to forty-five minute performance of cuttings from varied genres.

436. Theatre Directing Practicum. (3:2:4) Prerequisite: theatre arts foundation courses; TMA 336.
Directing projects for class critique and public presentation.

441R. Screenwriting 3. (3:4:0 ea.) Prerequisite: major status; TMA 291 or 292; 341. By application only.
Advanced narrative and/or nonfiction screenwriting principles. Emerging technology.

443R. Writer/Director/Actor Workshop. (3:6:1 ea.) Prerequisite: TMA 114.
Collaborative workshop developing new stage and screenplays through exercises, discussion, and writing. Scripts selected competitively; public readings at end of course.

451R. Playwriting 3. (3:4:0 ea.) Prerequisite: TMA 114, 351; or instructor's consent.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing or rewriting a play.

452R. Puppetry. (3:4:0 ea.) Prerequisite: TMA 114 or instructor's consent.
Theories, techniques, and experience constructing and operating puppets for use in performance, recreational, and educational settings.

455R.Theatre Tour. (3:0:Arr. ea.) Prerequisite: major status or instructor's consent. By audition.
Theatre for young audiences; touring experience.

457. Media in the Contemporary Classroom. (3:4:4)
Developing educational methods and techniques for using media in the specialized media classroom; study of educational models and theories related to historical and emerging media technologies.

460. Portfolio. (2:Arr.:0) Prerequisite: TMA 395 or 396 or concurrent enrollment with instructor's consent. By application only.
Capstone design and technology experience. Résumés, cover letters, job searches, and professional portfolio presentation. Analyzing interrelationships of ethical, aesthetic, and theological dimensions of creating performance.

461R. Stage Management 2. (1–3:0:Arr. ea.) Prerequisite: TMA 114, 361.
Stage management of BYU productions. Stage managers for departmental productions are enrolled in this course.

462. History of Costume. (3:3:0)
Costume, clothing, and textiles as mediums for understanding stages and states of individuals, families, and societies; apparel diversity and cultural identity.

463. Production Design. (2:2:2)
Introduction to design for film and television. Techniques, basic design elements, analysis, concept boards, budgets, and visits to film locations.

465R. Costume Construction 2. (2:4:0 ea.) Prerequisite: TMA 114, 265A, 265B.
Advanced assignments in hands-on costuming projects for departmental productions.

466R. Set Construction 2. (2:4:0 ea.) Prerequisite: TMA 114, 266.
Advanced skills in scenic construction and stage maintenance.

467. Makeup 3. (2:4:0) Prerequisite: TMA 367.
Advanced techniques in makeup application, including advanced prosthetics and wig making. Designers for departmental productions may be selected from students enrolled in this course.

468. Properties. (2:4:0) Prerequisite: theatre arts foundation courses.
Basic theatre and film techniques for buying, building, and maintaining production properties. Work on departmental productions.

469. Theatre Management. (3:4:0) Prerequisite: theatre arts foundation courses.
Basic philosophies of box office, front-of-house, and theatre marketing.

471. Advanced Design and Authoring. (3:3:2) Prerequisite: major status; TMA 371. By application only.
Advanced design and authoring of interactive media programs.

473R. Writer/Director Workshop (Narrative). (3:6:Arr. ea.) Prerequisite: media arts major status; TMA 419. By application only.
Collaborative directing, videotaping, editing, and revising scenes from advanced student scripts.

474R. Writer/Director Workshop (Nonfiction). (3:9:Arr. ea.) Prerequisite: media arts major status. By application only.
Collaborative development, revision, and polishing of nonfiction or multimedia projects.

475R. Media Arts Capstone. (1–3:Arr.:Arr. ea.) Prerequisite: media arts major status. By application only.
Final collaborative project for media students. May be narrative, nonfiction, multimedia, writing, or critical studies format. Fee.

477R. Issues in Media Arts. (3:5:0 ea.) Prerequisite: media arts major status; TMA 291, 292.
In-depth study of key media arts issues, within context of gospel principles.

480. Dramaturgy: Theory and Practice. (3:4:0) Prerequisite: TMA 101 or instructor's consent.
Techniques and methodology for dramaturgy, literary management, and educational outreach, including a dramaturgical project.

485R. Production Dramaturgy. (3:2:Arr. ea.) Prerequisite: TMA 480.
Experience as lead dramaturg for main-stage productions; building casebooks and overseeing audience education efforts. Rehearsal and production meeting attendance required.

491. Ethics, Aesthetics, and Theology. (1:2:0) Prerequisite: BFA acting major status.
Analyzing and considering interrelationships of ethical, aesthetic, and theological dimensions of creating and performing media arts and theatre texts.

492R. Media Arts Genres. (3:2:3 ea.) Prerequisite: media arts major or minor status; TMA 291 or 292.
Intensive analysis of a single major traditional media genre (i.e., western, musical, sitcom, or melodrama) with consideration of contextual, subtextual, and textual issues.

494. Transcendence: Religion and Film. (3:6:0) Prerequisite: media arts major or minor status; TMA 291 or 292.
Historical, stylistic, and thematic survey of approaches to religious and spiritual subject matter in film.

495. Shakespeare: Text and Performance. (3:4:0) Prerequisite: TMA 114.
Intensive, multifaceted exploration of selected Shakespearean texts, examined through a wide range of analytical and experiential approaches.

496R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status; theatre or media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

497. Media as a Mirror of Our Times. (3:2:3) Prerequisite: media arts major or minor status; TMA 291 or 292.
Interdisciplinary approach to media texts as aesthetic and historical documents expressing a people, place, and time.

498R. Special Topics in Media Arts. (3:3:3 ea.) Prerequisite: media arts major or minor status; TMA 291 or 292.
Consideration of compelling issues in media arts practice, theory, history, and criticism.

500-Level Graduate Courses (available to advanced undergraduates)

515R. Workshop 3: Special Projects. (1–6:0:Arr. ea.) Prerequisite: TMA 114 and instructor's consent.
Advanced special projects in theatre or media arts.

516R. Theatre and Media Arts Instruction. (1–3:Arr.:Arr. ea.) Prerequisite: TMA 114 and instructor's consent.
Developing teaching methods and techniques for instruction in theatre and media arts classroom.

536R. Directing Workshop. (3:Arr.:Arr. ea.) Prerequisite: TMA 436 or equivalent. By application only.
Advanced experience in production: directing.

550R. Theatre for Young Audiences. (3:3:1 ea.) Prerequisite: TMA 114 or equivalent.
Theories, techniques, and experience in creating formal drama for child and youth audiences.

551R. Playwriting 4. (3:4:0 ea.) Prerequisite: TMA 451 or equivalent; instructor's consent.
Workshop course designed to assist more advanced students in furthering their playwriting skills by writing or rewriting a play.

552. Improvisation. (3:3:2) Prerequisite: instructor's consent.
Informal or improvised dramatic techniques with children, adolescents, and/or adults.

557. Storytelling. (2:2:2) Prerequisite: TMA 114 or instructor's consent.
Theories, techniques, and practice in the art of telling spellbinding stories.

561R. Stage Management Project. (1–6:Arr.:Arr. ea.) Prerequisite: TMA 361, 461R; or equivalents.
Hands-on training for student stage managers through assigned realized productions, including supervision through full positions on stage and media productions. Department-arranged assignments.

562. Costume Design 3. (2:4:0) Prerequisite: TMA 362, 462; or equivalents.
Advanced conceptual approaches to costume design. Strong background in costuming required. Designers for departmental productions will be selected from students enrolled in this course.

563. Scenic Design 3. (2:4:0) Prerequisite: TMA 363, 463; or equivalents.
Advanced conceptual scenic design. Assumes strong background in scenography. Designers for departmental productions may be selected from students enrolled in this course.

564. Lighting Design 3. (2:4:0) Prerequisite: TMA 114, 364; or equivalents.
Advanced conceptual lighting projects. Assumes strong background in lighting. Designers for departmental productions may be selected from students enrolled in this course.

565R. Specialty Costumes. (2–6:Arr.:Arr. ea.) Prerequisite: TMA 114, 265A, 265B, or equivalents.
Advanced skills in millinery, dyes, footwear, and allied project areas.

567R. Makeup Project. (1–6:0:Arr. ea.) Prerequisite: TMA 267 and instructor's consent.
Practicum in makeup design and application. Departmental production designers and teaching assistants will be enrolled in this course.

568. Sound. (2:4:0) Prerequisite: theatre arts foundation courses.
Basics in sound design and reinforcement. Work on departmental productions.

569R. Design for Production. (1–4:0:Arr. ea.) Prerequisite: TMA 369 and instructor's consent.
Practical experience working with departmental designers; related topics.

580. Dramaturgical Theory and Practice. (3:4:0) Prerequisite: instructor's consent.
Techniques and methodology for dramaturgy, new play development, and audience education, including a dramaturgical project.

585R. Production Dramaturgy. (3:2:Arr. ea.) Prerequisite: TMA 580.
Experience as lead dramaturg for main-stage productions; building casebooks and overseeing audience education efforts. Rehearsal and production meeting attendance required.

599R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: major status; theatre or media arts foundation courses. By application only.
Off-campus experience or internship in theatre or media arts.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Theatre and Media Arts Faculty

Professors
Fielding, Eric (1992) BA, Brigham Young U., 1974; MFA, Goodman School of Drama, Art Inst. of Chicago, 1976.
Scanlon, Rory R. (1984) BA, Brigham Young U., 1980; MFA, U. of Illinois, 1984.
Swenson, Janet L. (1974) BA, MA, Brigham Young U., 1969, 1974; MFA, U. of Utah, 1992.

Associate Professors
Duncan, Dean W. (1992) BFA, Brigham Young U., 1987; MA, U. of Southern California, 1991; PhD, U. of Glasgow, Scotland, 1999.
Farahnakian, Mary (1988) BA, U. of Tehran, Iran, 1961; PhD, Brigham Young U., 1977.
Heiner, Barta (1988) BA, Brigham Young U., 1971; MFA, American Conservatory Theatre, 1977.
Morgan, David (1991) BA, Brigham Young U., 1985; MFA, National Theatre Conservatory, 1990.
Nelson, George D. (1990) BA, Brigham Young U., 1977; MFA, U. of Washington, 1979.
Parkin, Jeffrey L. (2004) BA, MFA, U. of Southern California, 1990, 1991.
Samuelsen, Eric (1992) BA, Brigham Young U., 1983; PhD, Indiana U., 1991.
Sorensen, Rodger D. (1996) BA, MA, Brigham Young U., 1972, 1974; PhD, U. of Texas, Dallas, 1999.
Threlfall, Timothy A. (1996) BFA, U. of Idaho, 1983; MFA, U. of Washington, 1987.

Assistant Professors
Harrop-Purser, Laurie (2001) BA, Brigham Young U., 1986; MFA, National Theatre Conserv., 1990.
Jensen, Amy P. (2000) BA, MA, Brigham Young U., 1990, 1998; PhD, U. of Illinois, 2003.
Jones, Megan Sanborn (2000) BA, MA, Brigham Young U., 1995, 1997; PhD, U. of Minnesota, 2003.
Larsen, Darl E. (1998) BA, U. of California, Santa Barbara, 1990; MA, Brigham Young U., 1993; PhD, Northern Illinois U., 2000.
Loosli, Kelly (2002) BA, Brigham Young U., 1996.
Russell, Thomas (2000) BA, Brigham Young U., 1988.
Swenson, Sharon L. (1987) BA, MA, PhD, U. of Utah, 1968, 1974, 1993.

Instructor
Hollingshaus, Wade (2006) BA, Brigham Young U., 1998; MA, U. of Washington, 2001.

Adjunct Faculty
Brenda Butterfield, James D'Arc, Duane C. Roberts.

Emeriti
Bentley, Marion J. (1971) BS, U. of Utah, 1950; MA, Stanford U., 1958; PhD, U. of Utah, 1968.
Crosland, Ivan A. (1971) BS, MA, Brigham Young U., 1961, 1965.
Henson, Charles A. (1958) BS, MS, EdD, Brigham Young U., 1957, 1959, 1980.
Jenkins, Jean R. (1967) BA, MA, Brigham Young U., 1947, 1966.
Metten, Charles L. (1962) BA, MA, U. of California, Los Angeles, 1951, 1952; PhD, U. of Iowa, 1960.
Nelson, Robert A. (1977) BA, U. of Arizona, 1970; PhD, U. of Utah, 1976.
Oaks, Harold R. (1970) BA, MA, Brigham Young U., 1960, 1962; PhD, U. of Minnesota, Minneapolis, 1964.
Pope, Karl T. (1966) BA, MA, Brigham Young U., 1962, 1964; PhD, Wayne State U., 1966.
Walker, Oscar Lee (1969) BS, MIE, Brigham Young U., 1968, 1975.
Whitman, Charles W. (1965) BA, MA, Brigham Young U., 1957, 1958; PhD, U. of Minnesota, Minneapolis, 1967.
Woodbury, Lael J. (1965) BS, Utah State U., 1952; MA, Brigham Young U., 1953; PhD, U. of Illinois, 1954.

Tongan

See Center for Language Studies.

Trukese

See Center for Language Studies.

Turkish

See Center for Language Studies.

Ukrainian

See Germanic and Slavic Languages.

Urdu

See Center for Language Studies.

Vanuatau

See Center for Language Studies.

Vietnamese

See Center for Language Studies.

Visual Arts

Linda Sullivan, Chair
E-509 HFAC, (801) 422-4266

College of Fine Arts and Communications Advisement Center
D-444 HFAC, (801) 422-3777

Admission to Degree Programs

Admission to the freshman level in the Department of Visual Arts is obtained by departmental application, which includes a drawing exercise and a portfolio review. This process is due in February prior to starting in the fall. (This does not apply to the art history major, which is open enrollment.) Please see General Information below for more details, or contact the college advisement center (1-877-890-5414).

The Discipline

The Department of Visual Arts serves five main purposes: (1) to prepare competent professionals in various fields of the plastic and graphic arts; (2) to prepare qualified designers to solve problems inherent in two- and three-dimensional applications; (3) to train historians who can critically appraise works of art; (4) to prepare art educators for teaching the visual arts at the elementary and secondary levels; and (5) to generally develop individuals' aesthetic sense by helping them experience art.

Career Opportunities

The art education degree certifies the student as an art specialist in public or private institutions, grades K–12. Other opportunities for the certified art specialist are in foreign school systems, recreation programs, art museum education programs, and galleries. Students qualify for positions in artist-in-the-schools programs and arts councils and as art consultants/coordinators. The degree also provides a foundation for graduate study leading to advanced degrees.

Most opportunities for careers related to art history exist in teaching at the junior college and university levels. The art history major traditionally prepares students for related graduate study, but it also provides excellent training for many art- and humanities-related careers and provides a solid foundation for entering several professional graduate programs.

The art history major is valuable for those going into any aspect of museum work, including art conservation/restoration, curatorial work, museum research, and museum youth education programs. It is also a useful and often key undergraduate major for careers in art law, architecture, historical restoration, art galleries, auction houses, and art resource/research library studies. Local, state, and federal agencies offer career possibilities related to arts and humanities councils. Combined with one of several other majors, an art history minor helps prepare the student for any number of careers.

Studio art majors are prepared to compete as freelance, self-employed artists, working through galleries, exhibitions, and museums to promote and sell their work. The MFA degree also prepares artists to teach on a college or a university level. Other career opportunities include printmaking, illustration, production crafts, teaching, gallery and museum work, computer art applications, and other related careers.

Design majors are fully prepared for careers in each of the respective disciplines—

Graphic design: Advertising agencies, design studios, in-house design organizations, freelance in mediums such as books, posters, signage, billboards, commercials, corporate identity systems, and logos.

Illustration: In-house or freelance illustration focusing on book jacket, editorial, corporate, or institutional work; advertising, children's books, and computer applications, among others.

Photography: Portraiture; commercial illustration; advertising; fashion; architectural photography; photo-journalism; editorial, stock, industrial, fine art, educational, medical, and travel photography; photographic conservation, marketing and manufacturing, and finishing.

Animation majors are prepared to work in various disciplines that include feature animation studios, visual and special effect studios, entertainment, computer games, and scientific data visualization.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BA	Art Education (K–12)
BA	Art History and Curatorial Studies
BA	Visual Arts
BFA	Animation
BFA	Graphic Design
BFA	Illustration
BFA	Photography
BFA	Studio Arts
Minors	Advertising Design
	Art
	Art Education
	Art History and Curatorial Studies
	Theatre and Media Arts Design

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MA	Art Education
MA	Art History and Curatorial Studies
MFA	Studio Art

For more information see the 2007–2008 Graduate Catalog.

General Information

Application Procedures for Freshmen

New students are accepted only once a year and may have their applications considered only twice. Enrollment is limited and based on several qualifications:

1. University and college admissions standards.
2. Completion of department application form.
3. Submission of slide portfolio.
4. Completion of creative exercise.

Appropriate forms are contained in an application packet available from the department office (E-509 HFAC) at the beginning of winter semester. Deadlines vary for specific programs, so please contact the department (422-8773 or 422-4266) for dates.

Note: Art history majors complete item 1 only.

Freshman Enrollment

Application packets must be returned before February 15.

Note: Individuals receiving notice of acceptance are expected to enroll for the foundation 100-level courses the first year they are accepted to the program; otherwise, they will automatically be dropped and will need to reapply. Anyone wishing for an exception to this policy will need the written approval of the department chair.

Sophomore-Through-Senior BFA Degree Program Enrollment

Permission to enroll for sophomore-through-senior-level BFA degree program courses is granted to students upon satisfactory development of skills and creative abilities demonstrated in a portfolio of drawings and designs completed during the preceding year. Faculty from each major will assess portfolios of work submitted by students wishing to advance in their respective fields of study. Students invited to continue are permitted to enroll in specified courses at the next academic level.

Note: Student portfolios will be reviewed once a year; the deadline is February 15.

Transfer Students

Transfer students in art disciplines must meet with the appropriate area coordinator. Transfer students in design disciplines are required to participate in a portfolio review; the deadline is February 15. Contact the area coordinator.

Note: Students not accepted into BFA degree programs may elect to enroll in the bachelor of arts program in visual arts. Students may apply to the BFA program no more than twice.

Degree Program Coordinators/Advisors

Coordinators are appointed to counsel students in each of the eight majors/emphases. Coordinators will advise students about program objectives, course content and sequence, career goals, and other matters pertaining to their major field of study.

Department Probationary Status

Students can be placed on probationary status for the following:

1. Inadequate academic performance.
2. Unprofessional attitude and lack of commitment.
3. BYU Honor Code violations.

Basic Degree Requirements

1. Student must meet application criteria for admission into the program.
2. All 100-level foundation courses must be completed before admission into sophomore-level courses.
3. A portfolio is required in all programs except art history.

BA Art Education (K–12) (85 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Application deadlines: February 15 and September 30.

Major Requirements

1. Complete the following first-year foundation courses:
   VA 111, 112, 114, 115, 131, 133, 134.
2. Complete 6 hours from the following second-year foundation courses:
   VAStu 214, 215, 216, 217, 218.
3. Complete 9 hours of 300- and 400-level courses.
4. Complete the following:
   ArtHC 300.
5. Complete one course from the following:
   ArtHC 350, 353, 355.

6. Complete the following art education licensure requirements during the same semester:
   VAEdu 324.
   Sc Ed 276R (3 hours).

   Note: Fingerprinting and FBI clearance must be completed before registration for Sc Ed 276R.
7. Complete the following:
   VAEdu 339, 377, 378, 397, 439, 450, 478.

   Note: VAEdu 377 and 439 must be taken in conjunction with 378.
8. Complete the following additional licensure requirements:
   ArtHC 201, 202.
   MFHD 210.
   Sc Ed 350, 353, 379.
9. Complete an interview with advisor.
10. Complete a teaching assistant experience.
11. Complete 12 hours from one of the following:
    Sc Ed 476R, 496R.

*Hours include courses that may fulfill university core requirements.

BA Art History and Curatorial Studies (55 hours*)

Major Requirements

1. Complete the following:
   ArtHC 201, 202, 203, 300.
   VAStu 200.
2. Ancient art: Complete one course from the following:
   ArtHC 302, 304, 306.
3. Medieval art: Complete one course from the following:
   ArtHC 310, 316.
4. Renaissance and baroque art: Complete one course from the following:
   ArtHC 320, 325, 329, 330, 335.
5. Nineteenth-century art: Complete one course from the following:
   ArtHC 340, 345, 363, 365.
6. Modern art: Complete one course from the following:
   ArtHC 350, 353, 355, 367.
7. Non-Western art: Complete one course from the following:
   ArtHC 371, 375, 377, 380, 382.
8. Complete 3 hours from one of the following thesis courses:
   ArtHC 498, 499R.
9. Complete three courses from any of the following upper-division core courses not already taken:
   ArtHC 302, 304, 306, 310, 316, 320, 325, 329, 330, 335, 340, 345, 350, 353, 355, 360, 363, 365, 367, 371, 375, 377, 380, 382, 490R, 496R.
10. Complete one course from the following:
    Fren 201, Germ 201, Ital 201.

    Note: German is strongly recommended for those wishing to pursue graduate work in art history.
11. Cognate fields: Complete 6 hours (two courses) from an approved list of courses. See the department office or college advisement center for the most current approved courses list.

*Hours include courses that may fulfill university core requirements.

BA Visual Arts (47.5 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 112, 114, 115.
2. Complete a minimum of 3 hours from the following:
   VA 131, 133, 134.
3. Complete the following:
   ArtHC 201, 202.
4. Complete 6 hours from the following:
   ArtHC 302, 304, 306, 310, 316, 320, 325, 329, 330, 335, 340, 345, 350, 353, 355, 360, 363, 365, 367, 371, 375, 377, 380, 382.
   HFL 328, 329.
   VAEdu 397.
   VAGD 349.
   VAIll 355, 356.
   VAPho 379.
5. Complete 24 hours from your approved track.

*Hours include courses that may fulfill university core requirements.

BFA Animation (67–70 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

The BFA in animation is an interdisciplinary degree offered by the College of Fine Arts and Communications through the cooperative involvement of the Department of Theatre and Media Arts and the Department of Visual Arts and the Ira A. Fulton College of Engineering and Technology's School of Technology.

Application deadline: April 15 after completing TMA 102 and VAAnm 160.

Major Requirements

1. Complete the following premajor courses:
   TMA 102.
   VAAnm 160.
2. Obtain acceptance into the animation BFA program.
3. Pass portfolio review during the sophomore year.
4. Complete the following courses:
   ArtHC 201, 202.
5. Complete the following foundation courses:
   TMA 114, 185, 294.
   VA 131, 134.
   VAAnm 260.

   Note: Prerequisites are waived for VA 131, 134.
6. Complete three courses from the following:
   InDes 251, 252.
   TMA 123, 241, 462.
   VAAnm 350R, 360.
7. Complete one course from the following:
   ArtHC 320, 325, 330, 335, 340, 345.
   TMA 291, 292, 462.
   VAIll 355, 356.
   VAPho 379.

8. Complete 3 hours of internship credit from one of the following:
   InDes 496R.
   TMA 399R.
   VAAnm 498R.
9. Complete 22 hours from the following or from other courses approved by faculty advisor:
   Bus M 372.
   C S 142.
   InDes 251, 252, 350, 352, 450, 452.
   TMA 100, 123, 236, 241, 262, 285, 319, 384R, 452R, 557.
   VAAnm 350R, 360, 361R, 362, 461R.
   VAIll 351.
   VAPho 170, 272.
   VAStu 104.
10. Complete 6 hours from one of the following BFA project courses:
    InDes 497R.
    TMA 475R.
    VAAnm 497R.

BFA Graphic Design (75.5–82.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 112, 114, 115, 131, 133, 134.
2. Complete the following:
   VAGD 210, 243, 245, 310, 340, 341, 342, 343, 344, 441, 442, 443, 444, 488.
   VAIll 251.
3. Complete 5 hours of the following:
   VAGD 497R.
4. Complete the following history requirement:
   VAGD 349.
5. Complete one course from the following history requirements:
   ArtHC 350, 355.
   HFL 328, 329.
   VAIll 355.
   VAPho 379.
6. Complete four of the following supporting courses:
   Bus M 340.
   Comms 230.
   VADes 496R.
   VAGD 348, 410R, 498R.
   VAIll 351, 352.
   VAStu 330R.

BFA Illustration (72 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 112, 114, 115, 131, 134.
2. Complete the following:
   VAGD 243, 245.
   VAIll 210, 251, 252, 350R, 351, 352, 353, 354, 451, 452, 453, 454, 488.
3. Complete 4 hours of the following:
   VAIll 497R.
4. Complete the following history requirement:
   VAIll 355.
5. Complete one course from the following history requirements:
   ArtHC 304, 306, 310, 316, 320, 325, 330, 335, 340, 345, 350, 355.
   HFL 328, 329.
   VAGD 349.
   VAIll 356.
   VAPho 379.
6. Complete 9 hours from the following supporting courses:
   InDes 410R.
   VADes 496R.
   VAIll 310, 350R, 357, 358, 450R, 494R, 498R.
   VAStu 218, 219, 328R, 330R, 333.

BFA Photography (65.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following core requirements:
   VA 111, 112, 114, 115.
2. Complete the following:
   VADes 496R (2 hours minimum).
   VAPho 170, 210, 272, 273, 275, 310, 372, 376, 377R, 475, 478, 488.
3. Complete 5 hours of the following:
   VAPho 497R.
4. Complete the following history requirement:
   VAPho 379.
5. Complete one course from the following history requirements:
   ArtHC 350, 355.
   HFL 328, 329.
   VAGD 349.
   VAIll 355, 356.
6. Complete 10 hours from the following supporting courses:
   Bus M 371R.
   Comms 230, 365, 398R.
   TMA 102, 171.
   VAGD 245.
   VAPho 410R.
   VAStu 218, 219, 330R, 351.

BFA Studio Arts (66.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following courses before applying to the BFA program:
   Freshman Core courses:
   VA 111, 112, 114, 115, 131, 133.
   Sophomore Foundations courses:
   VAStu 214, 215, 216, 217, 218, 219.
2. Be admitted to the BFA program.

3. Complete a combined minimum of 27 hours from the following 300-level courses and VAStu 480R.
   a. Complete at least 9 hours from the following courses. Students may select courses from both 2-D and 3-D offerings:
      VAStu 321, 322R, 327, 328R, 330R, 333, 350, 351, 353R, 356R, 358, 359R, 394R.
   b. Complete a minimum of 1 hour of the following every semster in the BFA program (4 hours minimum):
      VAStu 480R.
4. Complete 6 enrollments (3 hours) of the following:
   VAStu 395R.
5. Complete the following:
   VAStu 440, 497R.
6. Complete the following art history and criticism requirements:
   ArtHC 201, 202.
   VAEdu 397.

   And complete one course from the following:
   ArtHC 350, 353, 355.

Minor Advertising Design (15 hours)

This minor is intended for advertising majors seeking a background in design.

Minor Requirements

Complete the following:
VAGD 210, 243, 245, 310, 342.
VAStu 103, 203R.

Minor Art (20.5 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following:
   VA 111, 112, 114, 115.
2. Complete 4.5 hours from the following:
   VA 131, 133, 134.
3. Complete 4.5 hours from the following:
   VAStu 214, 215, 216, 217, 218, 219.
4. Complete 3 hours of art history or art criticism.

Minor Art Education (21 hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the department office for information regarding requirements for admission to this minor.

Minor Requirements

1. Complete the following core requirements:
   VA 114, 115.
2. Complete one course from the following:
   VAStu 214, 215.
3. Complete one course from the following:
   VAStu 216, 217.
4. Complete one course from the following:
   ArtHC 201, 202, 350, 355.
5. Complete the following:
   VAEdu 324, 377, 439.

Minor Art History and Curatorial Studies (18 hours*)

Minor Requirements

1. Complete the following:
   ArtHC 201, 202.
2. Complete 12 elective hours in art history from 300-level or above courses.

*Hours include courses that may fulfill university core requirements.

Minor Theatre and Media Arts Design (18 hours)

This minor is intended for theatre and media arts majors seeking a background in design.

Minor Requirements

1. Complete the following:
   VA 112, 115, 134.
   VAStu 103.
2. Complete 10 hours from the following:
   HFL 328, 329.
   VA 114.
   VADes 410R.
   VAIll 350R.
   VAPho 170, 272, 273.
   VAStu 214.

Art History and Curatorial Studies (ArtHC)

Undergraduate Courses

111. Introduction to Art History. (3:3:0) Honors also.
Topical approach to art history and appreciation.

201. World Civilization to 1500. (3:3:0)
Survey of Western civilization emphasizing the visual arts from ancient Greece to the Gothic period.

202. World Civilization Since 1500. (3:3:0)
Survey of Western civilization emphasizing the visual arts from the Renaissance to the twentieth century.

203. Survey of Oriental Art and Architecture. (3:3:0)
Art and architecture of China, Korea, Japan, Southeast Asia, and India, considering social, religious, and environmental context of various cultures.

211. Survey of Western Art 1. (3:3:0) Independent Study only.
Art and architecture of the Western world from primitive through medieval.

212. Survey of Western Art 2. (3:3:0) Independent Study only.
Art and architecture of the Western world from Renaissance to contemporary.

300. Art Historical Methodology, Research, and Intensive Writing. (3:3:0) Prerequisite: ArtHC 201, 202.
Necessary skills to research and write in the field of art history.

302. Egyptian Art and Architecture. (3:3:0)
Development of Egyptian art from predynastic through Hellenistic periods, emphasizing contributions to the development of world civilization.

304. Greek Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
History and appreciation of Greek art, with consideration of formative cultures.

306. Roman Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Art and architecture of the Etruscans and Romans.

310. Early Christian and Byzantine Art. (3:3:0) Prerequisite: ArtHC 201 or instructor's consent.
Survey of Christian art in the Roman and Byzantine Empire from ca. 200 to 1453.

316. Art of the Medieval West. (3:3:0) W Prerequisite: ArtHC 201, 202.
Art in Western Europe from A.D. 400 to 1400.

320. Italian Renaissance Art. (3:3:0)
Art and architecture in Italy from 1200 to 1580.

325. Northern Renaissance Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Fifteenth- and sixteenth-century art in northern Europe.

329. Renaissance and Baroque Architecture. (3:3:0) Prerequisite: ArtHC 201, 202.
History of architecture in Italy, Spain, France, Germany, Austria, and England, 1400–1700.

330. Southern Baroque Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
History of baroque painting, sculpture, and architecture in Italy, Spain, and France.

335. Northern Baroque Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Baroque painting in Flanders and Holland.

340. Nineteenth-Century European Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Nineteenth-century art in Europe.

345. American Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
American painting and sculpture from colonial through modern times.

350. Modern Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Modern European art and theory, 1900–1945.

353. American Art 1876–1950. (3:3:0) W
Survey of painting and sculpture from 1876 to 1950.

355. Contemporary Art. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Critical evaluation of trends in art since 1945.

360. Introduction to Museum and Curatorial Studies. (3:3:0) Prerequisite: ArtHC 201, 202.
Duties of museum professionals while applying museum theory to the practical development of a museum exhibit.

363. English Architecture, 1485–1900. (3:3:0)
English architecture from Tudor through Victorian period.

365. American Architecture. (3:3:0)
Major figures, monuments, and movements in American architecture from colonial period through "Gilded Age."

367. Modern Architecture. (3:3:0) Prerequisite: ArtHC 202 or instructor's consent.
Critical review of roots and evolution of modern architecture.

371. Chinese Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202, 203.
Chinese art and architecture from its neolithic origins through the dawn of the modern age. Literary, social, and religious contexts considered.

375. Japanese Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202, 203.
Japanese art and architecture from its neolithic origins through the dawn of the modern age. Literary, social, and religious contexts considered.

377. Islamic Art and Architecture. (3:3:0) Prerequisite: ArtHC 201, 202.
Importance of Islamic contributions to world culture from pre-Islamic period through modern times.

380. Northern Mesoamerican Art. (3:3:0) Prerequisite: ArtHC 201, 202.
Survey of art and architecture of Mexico from antiquity to present.

382. Southern Mesoamerican Art. (3:3:0) Prerequisite: ArtHC 201, 202.
Survey of art and architecture of southern Mexico and central America from antiquity to present.

490R. Special Topics and Readings in Art History. (1–6:Arr.:Arr. ea.)
Topics of specific student interest, centered on strengths of visiting faculty, BYU Study Abroad Program, or other significant art history projects.

496R. Academic Internship: Museum Internship. (1–8:0:0 ea.) On dem. Prerequisite: ArtHC 300, 9 hours minimum upper-division art history courses, project approval.
On-the-job experience.

498. Senior Thesis. (3:3:0) F, W Prerequisite: ArtHC 300; senior standing.
Capstone project tying together major course work. An expansion and refinement of work started earlier in other classes.

499R. Honors Thesis. (1–6:0:0 ea.)

500-Level Graduate Courses (available to advanced undergraduates)

500. Art in Theory: Spectatorship. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the philosophical relationship between viewer and object.

505. Art in Theory: Language. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the recent interest in language and semiotics.

510. Art in Theory: Context. (3:2:0) F Prerequisite: graduate status.
Review and critique of major theoretical approaches in art history, emphasizing the space of display, the museum, and the work's social reception.

512R. Studies in Islamic Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Islamic art.

514R. Studies in Chinese Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Chinese art.

516R. Studies in Japanese Art. (3:3:0 ea.) Prerequisite: graduate status.
Selected topics in Japanese art.

520R. Studies in Ancient Art. (3:3:0 ea.) F, W, on dem.
Selected topics in Egyptian, Greek, and Roman art.

530R. Studies in Medieval Art. (3:3:0 ea.) F, W, on dem.
Selected topics in early Christian, Byzantine, Romanesque, and Gothic art.

540R. Studies in Renaissance Art. (3:3:0 ea.) F, W, on dem.
Selected topics in Northern and Southern Renaissance art.

550R. Studies in Baroque Art. (3:3:0 ea.) F, W, on dem.
Selected topics in northern and southern baroque art.

560R. Studies in Eighteenth- and Nineteenth-Century Art. (3:3:0 ea.) F, W, on dem.
Selected topics in eighteenth- and nineteenth-century art of Europe and America.

570R. Studies in Modern and Contemporary Art. (3:3:0 ea.) F, W, on dem.
Selected topics in modern and contemporary art of Europe and America.

580R. Studies in Architecture. (3:3:0 ea.) F, W, on dem.
Selected topics in architecture of Europe and America.

590R. Studies in Curatorship. (3:3:0 ea.) F, W, on dem.
Selected topics in curation and the museum.

595R. Foreign Language Readings for Art Historians. (3:3:0 ea.) Sp, Su Prerequisite: graduate student status.
Special instruction in reading French or German scholarly texts.

599R. Academic Internship. (1–8:0:0 ea.) On dem. Prerequisite: ArtHC graduate student status.
Professional museum experience with a curatorial mentor.

Graduate Courses

For 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Visual Arts Core (VA)

Required of all majors in the visual arts (except art history), the visual arts core is a predisciplinary preparation that embraces knowledge and skills from each discipline and underlying principles common to all disciplines. The core is designed to serve students more efficiently by facilitating their progress through the visual arts programs and allowing flexibility in choosing their individual program direction. The core enables students to acquire a basic and broad understanding of the visual arts before engaging in the specific discipline's content and modes of inquiry.

Undergraduate Courses

111. Freshman Seminar. (1:1:0) F Prerequisite: acceptance into visual arts program.
Conceptual and philosophical preparation for visual arts majors. Lecture and guided discussion seminar. Nature and value of visual arts and visual culture.

112. Survey of Digital Technology. (1.5:3:0) F, W Preequisite: acceptance into visual arts program.
Fundamental principles of digital technology as related to the visual arts.

114. Drawing. (3:6:0) F, W Prerequisite: acceptance into visual arts program.
Observational and conceptual drawing using a variety of media and methods.

115. Two-Dimensional Design. (3:6:0) F, W Prerequisite: acceptance into visual arts program.
Formal and conceptual elements of design, color, and composition, using a variety of media.

131. Figure Drawing. (3:4:0) W on blk., Su Prerequisite: VA 111, 114, 115.
Figure study using a variety of media and methods. Readings, writings, and participation in course work exhibitions required.

133. Three-Dimensional Design. (1.5:4:0) W on blk., Su Prerequisite: VA 111, 114, 115.
Three-dimensional concepts, theories, and issues using a variety of media and processes. Readings, writings, and participation in course work exhibitions required. Fee.

134. Introduction to Photography. (1.5:4:0) W on blk., Su Prerequisite: VA 111, 115; acceptance into visual arts program.
Introduction to photography for visual arts majors, including camera operation and digital capture, photographic principles, lighting, and design with limited postproduction editing. No darkroom.

346. Practicum in Graphic Design. (3:6:0) F, W Prerequisite: freshman core, VAGD 210, 245.
Market applications, portfolio preparation, and other aspects of graphic design. Individual portfolio projects designed to develop graphic design skills.

356. Practicum in Illustration. (3:6:0) F, W Prerequisite: VA 111, 112, 114, 115, 131, 133, 136; sophomore courses.
Market applications, portfolio preparation, advertising patterns, and other aspects of the illustration business. Individual portfolio projects designed to develop personal illustration skills.

373. Practicum in Photography. (3:6:0) F, W Prerequisite: freshman core, VAPho 170.
Professional portrait studio practices, including lighting, working with people, basic business practices; portfolio preparation, advertising, marketing, etc.

380. Museum Art Education. (3:3:0) F, W Prerequisite: ArtHC 111 or 201; ArtHC 202 or Hum 201 or 202.
The museum as a learning environment; current exhibitions; learning and teaching strategies for collaboration with museum and classroom educator.

Visual Arts Animation (VAAnm)

Undergraduate Courses

160. Introduction to Animation. (1.5:4:0) F, W, Su Prerequisite: pre-animation major status.
Foundational principles and techniques for animation.

260. Storyboarding. (3:4:0) F Prerequisite: acceptance into animation program.
Introduction to visual storytelling.

350R. Gesture Drawing for Animators. (3:6:0) F, W Prerequisite: VA 131.
Drawing humans and animals in motion.

360. Visual Development and Character Design. (3:6:0) F Prerequisite: acceptance into animation program.
Applying design principles for animation.

361R. Animation Studio 1. (3:6:0 ea.) W Prerequisite: foundations portfolio review.
Advanced animation projects.

362. Advanced Animation. (3:6:0) W Prerequisite: VAAnm 160.
Applying advanced animation principles, emphasizing character.

411R. Animation Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of animation.

461R. Animation Studio 2. (3:6:0 ea.) W Prerequisite: BFA acceptance.
Individual advanced animation projects.

494R. Special Problems in Animation. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in animation of special interest.

497R. BFA Animation Final Project. (1–3:Arr.:Arr. ea.) F, W, Sp, Su Prerequisite: BFA advisor's consent.
Advanced individual animation project with minimum guidance showing a high degree of competence.

498R. Directed Studies in Animation. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in animation.

Visual Arts Design (VADes)

Undergraduate Courses

410R. Computer Applications Studio. (2:0:2 ea.) Prerequisite: VADes 310.
Individual major project using high-end hardware and software.

411R. Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of design.

496R. Academic Internship: Professional Internship. (1–6:Arr.:Arr. ea.) Prerequisite: department's and faculty advisor's consent.
Work experience in professional design studio evaluated by supervisor.

Visual Arts Education (VAEdu)

Undergraduate Courses

324. Foundations in Art Education. (3:3:0) Prerequisite: concurrent enrollment in Sc Ed 276R.
Theoretical, philosophical, and historical foundations of art education; children's aesthetic development.

326. Art for Elementary Teachers. (2:2:1) F, W, Sp, Su
Preservice preparation designed to help elementary classroom teachers understand the visual arts and develop skills necessary for implementing a discipline-based approach for art education.

339. Computer Application in Art Education. (1.5:1.5:0) F, W, Sp Prerequisite: VAEdu 324, Sc Ed 276R.
Basic program applications for developing instructional materials in art education.

377. Art History and Visual Culture Methods. (3:3:0) W Prerequisite: VAEdu 324, Sc Ed 276R; VAEdu 339 or concurrent enrollment.
Theoretical foundations and practical applications for teaching art history and production.

378. Practicum in Secondary Education. (1:0:3) F, W Prerequisite: concurrent enrollment in VAEdu 377, 439.
Implementing meaningful and engaging instruction for secondary students; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

397. Introduction to Art Criticism. (3:3:0) Prerequisite: VAEdu 324, Sc Ed 276R.
Theoretical foundations for critical judgment in art and their application in judging works of art.

439. Aesthetics and Criticism Methods for Art Educators. (3:3:0) W Prerequisite: VAEdu 324, Sc Ed 276R; VAEdu 339 or concurrent enrollment.
Theoretical foundations and practical applications for teaching aesthetics and criticism.

450. Advanced Studio for Art Educators. (3:6:0) F, W Prerequisite: VAEdu 324, Sc Ed 276R.
Exploring visual culture and contemporary art problems. Creating artworks and methodologies for translating art-making experiences in the K–12 art program.

478. Art Curriculum Development, Implementation, and Evaluation. (3:3:0) Prerequisite: VAEdu 324, Sc Ed 276R; VAEdu 339 or concurrent enrollment; a C– grade or higher in VAEdu 377, 397, 439.
Principles for developing balanced art curriculum; curriculum implementation; evaluation of student progress and art program effectiveness.

494R. Special Problems in Art Education. (1–3:0:0 ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

578R. Art Education Studio. (3:0:6 ea.) Prerequisite: graduate student status.
MA courses in ceramics, drawing, figure drawing, oil painting, aqueous painting, printmaking, crafts, sculpture, digital art, and conceptual art media.

594R. Special Problems in Art Education. (1–3:0:Arr. ea.) Sp, Su
Topics dealing with current education issues.

Graduate Courses

For 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Visual Arts Graphic Design (VAGD)

Undergraduate Courses

210. Intermediate Computer Applications to Graphic Design. (2:4:0) Prerequisite: visual arts core.
Introducton to computer software programs specific to graphic design.

243. Basic Typography. (2:0:2) Prerequisite: visual arts core.
Exploring fundamentals and traditions for creating, setting, and designing with type. Solving visual problems with type.

245. Introduction to Graphic Design. (2:2:2) Prerequisite: visual arts core.
Communication problems and solutions through visual interpretations of images, type, and symbols. Comprehensive study of printing, binding methods; manufacture and uses of printing papers.

310. Advanced Computer Applications to Graphic Design. (2:4:0) Prerequisite: VAGD 210.
Specific graphic design computer program applications.

340. Corporate Identity Design. (3:3:3) Prerequisite: VAGD 243 and BFA acceptance.
Current philosophy in corporate identification and trademark design. Design trademarks, logotypes, and identity programs.

341. Packaging Design. (3:3:3) Prerequisite: BFA acceptance.
Packaging and its function in the marketplace; current packaging technology and aesthetics.

342. Advertising Design. (3:2:2) Prerequisite: BFA acceptance.
Particular demands of the advertising world: marketing strategy, editorial and visual concepts, etc. Design ads, collateral materials, campaigns.

343. Publication Design. (3:2:2) Prerequisite: BFA acceptance.
Book and magazine publishing and their special editorial, design, and manufacturing requirements.

344. Poster Design. (3:3:3) Prerequisite: BFA acceptance.
Functions and characteristics of posters; past and current aesthetics.

348. Type as Image. (3:2:2) Prerequisite: BFA acceptance.
Developing unique and expressive letterforms, especially the modification of letters to create new abstract or pictorial images.

349. History of Graphic Design. (3:3:0) Prerequisite: visual arts core.
Survey of visual communication.

410R. Computer Applications Studio for Graphic Designers. (2:4:0 ea.) Prerequisite: VAGD 310.
Individual graphic design project using high-end hardware and software.

411R. Graphic Design Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of graphic design.

441. Senior Graphic Design Studio 1. (3:3:3) Prerequisite: BFA acceptance.
Opportunity for senior class members to work as a group in solving design problems for real clients on major projects.

442. Senior Graphic Design Studio 2. (3:3:3) Prerequisite: VAGD 441.
Continuation of VAGD 441.

443. Special Problems in Graphic Design 1. (3:3:3) Prerequisite: BFA acceptance.
Advanced assignments in graphic design; individual portfolio development.

444. Special Problems in Graphic Design 2. (3:3:3) Prerequisite: BFA acceptance.
Continuation of VAGD 443.

488. Business Practices for Graphic Designers. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the graphic design profession.

494R. Special Problems in Graphic Design. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in graphic design of special interest.

497R. BFA Graphic Design Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in graphic design with minimum guidance, showing a high degree of competence.

498R. Directed Studies in Graphic Design. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in graphic design.

Visual Arts Illustration (VAIll)

Undergraduate Courses

210. Intermediate Computer Applications to Illustration. (2:4:0) Prerequisite: visual arts core.
Introduction to computer software programs specific to illustration.

251. Illustration 1. (2:4:0) F, W, Su Prerequisite: visual arts core.
Overview of styles, techniques, methods, and materials. Illustrative concepts and problem solving.

252. Intermediate Life Drawing. (3:6:0) F, W, Su Prerequisite: VA 131.
Drawing the classic figure from gesture to finished rendering, emphasizing structure, anatomy, form, and medium.

310. Advanced Computer Application Illustration. (2:4:0) F, W Prerequisite: VAIll 210.
Specific computer illustration program applications.

350R. Advanced Life Drawing. (3:6:0 ea.) F, W, Sp Prerequisite: VA 131, VAIll 252.
Drawing the figure in modern or historical costume; developing drawing skills, especially relating to the draped figure.

351. Illustration 2. (3:3:3) Prerequisite: BFA acceptance.
Narrative illustration problems emphasizing academic study of the human figure, using various media.

352. Illustration 3. (3:3:3) Prerequisite: BFA acceptance.
Conceptual illustration problems and market applications, using various media.

353. Book Illustration. (3:3:3) Prerequisite: BFA acceptance.
Book cover illustration; narrative problems and applicable markets; related media and skills.

354. Editorial Illustration. (3:3:3) Prerequisite: BFA acceptance.
Magazine illustration; conceptual problems and related markets; applications and media.

355. History of American Illustration 1 (1860–1930). (3:4:0) Prerequisite: visual arts core.
Survey of illustration in visual communication, emphasizing the birth of publishing and "Golden Age" of American illustration, 1860–1930.

356. History of American Illustration 2 (1930–Present). (3:4:0) W Prerequisite: visual arts core.
Survey of American illustration in visual communication, emphasizing from 1930 to the present.

357. Sketchbook. (3:6:0) W Prerequisite: VA 114, 115, 131; VAIll 250, 350R.
Using a sketchbook in visual-thinking process: exploring ideas, recording visual experience, and developing fundamental drawing skills.

358. Character Design for Illustrators. (3:6:0) F Prerequisite: VA 114, 115, 131, VAIll 250, 350R.
Concepts and projects dealing with interpretation and stylization of human and animal characters applied to children's markets, caricature, animation, and humorous illustration.

411R. Illustration Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of illustration.

450R. Painting the Human Head. (3:3:3 ea.) Prerequisite: VAIll 350R and BFA acceptance.
Painting from a live model; unique aspects of portraiture and colors of the human face.

451. Senior Illustration Studio 1. (3:3:3) Prerequisite: VAIll 351, 352, and BFA acceptance.
Individual portfolio development.

452. Senior Illustration Studio 2. (3:3:3) Prerequisite: VAIll 451.
Flexible in nature, featuring various instructors with unique individual skills. Team taught. Advanced assignments in illustration; individual portfolio preparation.

453. Illustration 4. (3:3:3) Prerequisite: VAIll 351, 352; BFA acceptance.
Advanced assignments in illustration. Various instructors with unique skills and market experience.

454. Illustration 5. (3:3:3) Prerequisite: VAIll 351, 352; BFA acceptance.
Continuation of VAIll 453. Advanced assignments in illustration and media.

488. Professional Practices for Illustrators. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the illustration profession.

494R. Special Problems in Illustration. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in illustration of special interest.

497R. BFA Illustration Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in illustration with minimum guidance, showing a high degree of competence.

498R. Directed Studies in Illustration. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in illustration.

Visual Arts Photography (VAPho)

Undergraduate Courses

170. Introduction to Black and White Photography. (3:4:4) Prerequisite: acceptance into visual arts program, VA 120.
Basic camera and darkroom techniques emphasizing black and white film processing and printmaking.

210. Introduction to Digital Imaging (3:6:2) F, Sp Prerequisite: VA 112, 115, VAPho 170.
Photography-based digital imaging, including film scanning, digital capture, color management, Photoshop instruction, fine art and commercial print output, and archiving.

272. Introduction to Color Photography. (3:2:3) W Prerequisite: VAPho 170.
Color aesthetics, theory, and systems in traditional and digital capture and printmaking.

273. Advanced Photography. (3:2:3) F Prerequisite: VAPho 170.
Camera and darkroom techniques using the zone system for exposure and development control of large format negatives and prints. Lab required.

275. Classical Portrait Photography. (3:3:2) Prerequisite: VAPho 170, 210, 273.
Studio and environmental portraiture as well as traditional approaches to portrait photography, including wedding/bridal. Lab required.

310. Advanced Computer Applications to Photography. (2:4:0) F Prerequisite: VAPho 210.
Specific photography computer applications, including workflow, color management, and personal project work.

372. Still Life Photography. (3:2:3) Prerequisite: BFA acceptance.
Camera and studio techniques to produce illustrations for advertising layout and other media. Lab required.

376. Editorial Photography. (3:4:4) W Prerequisite: acceptance to BFA photography level.
Use of photography in magazines, newspapers, annual reports, etc. Creating and publishing picture stories.

377R. Exploring Alternative Photography Processes. (3:3:3 ea.) Prerequisite: BFA acceptance.
Photography as an exploratory, sensitizing process. Lab required.

379. History of Photography. (3:3:0) Prerequisite: visual arts core.
Origin and development of photographic aesthetics.

410R. Computer Applications Studio for Photographers. (2:4:0 ea.) Prerequisite: VAPho 310.
Individual photography project using high-end hardware and software.

411R. Photography Field Study. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
On-location study of photography.

475. Advanced Location Photography. (3:6:0) F Prerequisite: BFA acceptance.
Lighting and photographing architecture, products, people, and concepts in environmental settings for the editorial, corporate, industrial, and advertising industry.

477R. Nature Photography. (3:3:3 ea.) Prerequisite: instructor's consent.
Techniques of professional nature and landscape photography.

478. Fine Art Photography. (3:0:4) Prerequisite: VAPho 272 and BFA acceptance.
Fine art approaches to photography; conceptual, social, and aesthetic values; modern and postmodern values.

488. Professional Practices for Photographers. (2:2:0) Prerequisite: BFA acceptance.
Business aspects of the photographer's profession.

494R. Special Problems in Photography. (1–3:Arr.:Arr. ea.) Prerequisite: instructor's consent.
Individual study in photography of special interest.

497R. BFA Photography Final Project. (1–3:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Advanced individual project in photography, showing a high degree of competence.

498R. Directed Studies in Photography. (1–6:Arr.:Arr. ea.) Prerequisite: BFA advisor's consent.
Credit for work experience in photography.

Visual Arts Studio (VAStu)

Undergraduate Courses

100. Introduction to Art. (1:1:0)
Basic form, content, and art processes through lectures, demonstrations, and studio and gallery visits.

103. Introduction to Drawing. (2:1:3)
Basic drawing techniques and concepts.

104. Introduction to Sculpture. (2:1:3)
Basic sculpture processes and concepts. Fee.

105. Introduction to Ceramics. (2:1:3)
Basic methods and processes of forming and glazing original ceramic objects. Fee.

106. Introduction to Printmaking. (2:1:3)
Basic techniques in etching and woodcut. Fee.

107. Introduction to Oil Painting. (2:1:3)
Basic concepts and techniques of oil painting.

108. Introduction to Watercolor. (2:1:3)
Basic concepts and techniques of watercolor.

109. Introduction to Calligraphy. (2:1:3)
Basic skills in hand lettering.

200. Studio Techniques for Art History. (3:3:0)
Introduction to art techniques, materials, and practices directed toward art history majors.

203R. Drawing 2. (2:1:3 ea.) Prerequisite: VAStu 103.
Extended work in basic drawing techniques.

204R. Sculpture 2. (2:1:3 ea.) Prerequisite: VAStu 104.
Extended work in basic sculpture processes and concepts. Fee.

205. Ceramics 2. (2:1:3) Prerequisite: VAStu 105.
Extended methods of creating original ceramic objects, including glaze mixing, kiln firing, and research techniques. Fee.

206R. Printmaking 2. (2:1:3 ea.) Prerequisite: VAStu 106.
Extended work in etching. Fee.

207R. Painting 2. (2:1:3 ea.) Prerequisite: VAStu 107.
Continuation of VAStu 107.

208R. Watercolor 2. (2:1:3 ea.) Prerequisite: VAStu 108.
Continuation of VAStu 108.

209. Calligraphy 2. (2:1:3) Prerequisite: VAStu 109.
Spencerian alphabet and design. Problems in applying various handmade and transfer alphabets.

214. Aqueous Media Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation in transparent aqueous media.

215. Painting Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation painting.

216. Ceramics Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation ceramics. Fee.

217. Sculpture Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation sculpture. Fee.

218. Intaglio Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation printmaking. Fee.

219. Lithography Fundamentals. (1.5:1:2) Prerequisite: visual arts core.
Foundation printmaking. Fee.

321. Drawing. (3:1:5) Prerequisite: visual arts core.
Drawing as a graphic form of self-expression, emphasizing personal statement in response to various experiences and concepts.

322R. Figure Drawing. (3:1:5 ea.) Prerequisite: visual arts core.
Drawing from the human figure, emphasizing structure and anatomy.

327. Painting. (3:3:3) Prerequisite: visual arts core and VAStu 215.
Fundamental concepts and techniques of oil painting.

328R. Figure Painting. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 215, 322, 327.
Fundamentals of figure painting.

330R. Bookbinding. (3:6:0 ea.) F, W
Traditional approaches to hand bookbinding.

333. Aqueous Media. (3:2:4) Prerequisite: visual arts core and VAStu 214.
Exploring multiple aqueous media on paper: transparent water color, acrylic, gouache, casein, egg tempera.

350. Printmaking: Intaglio. (3:2:4) Prerequisite: visual arts core and VAStu 218.
Intaglio printmaking, based on traditional and contemporary techniques. Fee.

351. Printmaking: Lithography. (3:2:4) Prerequisite: visual arts core and VAStu 219.
Lithography printmaking, based on traditional and contemporary techniques. Fee.

353R. Computer Art. (3:2:4 ea.) Prerequisite: instructor's consent.
Exploring the computer as a tool for visual self-expression.

355R. Stained Glass. (3:2:4 ea.)
Methods and processes using leaded glass, copper, foil, and faceted glass. Fee.

356R. Figure Sculpture. (3:1:5 ea.) Prerequisite: visual arts core and VAStu 217.
Modeling the human figure in clay. Fee.

358. Sculpture. (3:1:5) Prerequisite: visual arts core and VAStu 217.
Traditional and nontraditional approaches to sculpture. Fee.

359R. Ceramics. (3:2:4 ea.) Prerequisite: visual arts core and VAStu 216, 217.
Designing, throwing, hand forming, decorating, glazing, and firing techniques. Fee.

394R. Special Problems in Art. (1–3:0:0 ea.) Prerequisite: instructor's consent.

395R. Studio Seminar. (0.5:1:0 ea.) F, W Prerequisite: VA 111.
Selected contemporary issues involving visiting artists, guest lecturers, video documentaries, discussions, and program information.

440. Business Practices for Artists. (1.5:2:0) Prerequisite: visual arts major.
Basic business practices associated with managing career in visual arts.

456R. Sculpture Studio. (1–9:Arr.:Arr. ea.) Prerequisite: VAStu 356R or 358R and admission by portfolio.
Advanced study in sculpture: traditional and nontraditional approaches. Fee.

459R. Ceramic Studio. (1–9:Arr.:Arr. ea.) Prerequisite:VAStu 359R and admission by portfolio.
Exploratory experience with advanced methods in ceramics. Research emphasis on clay bodies, glazes, and constructing and operating kilns. Fee.

480R. Advanced Studio. (1–3:Arr.:Arr. ea.) Prerequisite: VAStu 321 or 322R; 350R or 351R; 327R or 333R; 328R (if figure emphasis).
Individual development of art issues in advanced studio environment. Writing a proposal accompanied by a readings list.

496R. Academic Internship: Professional Internship. (1–6:0:0 ea.) F, W, Sp, Su Prerequisite: visual arts major.

497R. BFA Final Project. (1:0:0 ea.)

Graduate Courses

For 600-level courses, see the BYU 2007–2008 Graduate Catalog.

Visual Arts Faculty

Professors

Barrett, Robert (1982) BFA, U. of Utah, 1973; MA, MFA, U. of Iowa, 1975, 1976.
Barsch, Wulf E. (1974) BFA, Werkkünstschule-Hanover, West Germany, 1968; MA, MFA, Brigham Young U., 1970, 1971.
Barton, Carold C. (1994) BFA, Brigham Young U., 1989; MFA, Ohio State U., 1994.
Beattie, Donna Kay (1989) BSE, Emporia State U., 1963; MA, U. of Missouri, 1985; PhD, U. of Kansas, 1990.
Hamilton, Charles Mark (1974) BA, Brigham Young U., 1967; MA, U. of Utah, 1972; PhD, Ohio State U., 1978.
Hull, Richard (1987) BFA, Brigham Young U., 1987.
Johnson, Mark J. (1987) BA, Brigham Young U., 1979; MA, U. of Illinois, 1983; MFA, PhD, Princeton U., 1984, 1986.
Kimball, W. Wayne, Jr. (1984) BA, Southern Utah State Coll., 1968; MFA, U. of Arizona, 1970.
Marshall, Robert L. (1969) BA, MA, Brigham Young U., 1966, 1968.
Ostraff, Joseph E. (1993) BFA, Brigham Young U., 1982; MFA, U. of Washington, 1984.
Peacock, Martha M. (1987) BA, Brigham Young U., 1978; MA, PhD, Ohio State U., 1985, 1989.
Sullivan, Linda (1991) BA, Brigham Young U., 1981; MFA, U. of Utah, 1993.
Telford, John (1990) BA/MFA, U. of Utah, 1988.

Associate Professors

Allen, Von (1984) BA, MA, Edinboro State Coll., 1973, 1976; MFA, Syracuse U., 1983.
Andersen, Bethanne (1997) BFA, MFA, Brigham Young U., 1976, 1979.
Brinkerhoff, Val (1995) BA, Brigham Young U., 1980; MFA, Utah State U., 1987.
Christensen, Brian D. (1993) BFA, Brigham Young U., 1990; MFA, Washington U., 1993.
Draper, Bryon (1999) BFA, Brigham Young U., Hawaii, 1990; MFA, Brigham Young U., 1995.
Gray, Sharon R. (2004) BA, Brigham Young U., 1968; MS, Radford College, 1978; EdD, Brigham Young U., 1992.
Haltern, Hagen G. (1978) BFA, Fachhochschule, Cologne, West Germany, 1972; MFA, Kunstakademie, Düsseldorf, Germany, 1976.
Pulfer, Adrian (1985) BFA, Brigham Young U., 1988.

Assistant Professors

Everett, Peter (2000) BFA, Brigham Young U., 1996; MFA, Pratt Inst., 2000.
Finlayson, Cynthia (1999) BA, MSS, George Washington U., 1974, 1984; PhD, U. of Iowa, 1998.
Gillett, Eric (1998) BFA, Brigham Young U., 1991; MFA U. of Utah, 2003.

Instructors

Jensen, Heather Belnap (2001) BA, MA, Brigham Young U., 1994, 1997.
Magleby, Mark (1997) BA, Brigham Young U., 1989; MA, Ohio State U., 1992.

Adjunct Faculty

Gray, Campbell (1997) BE, Sydney Coll., Australia, 1982; MLP, U. of New England, Australia, 1986; PhD, U. of Sussex, England, 1994.

Emeriti

Allen, Murray F. (1969) BS, U. of Utah, 1947; MA, Brigham Young U., 1968.
Allen, Phyllis Sloan (1968) BA, U. of California, Berkeley, 1931.
Barrus, Wallace M. (1969) BS, Brigham Young U., 1964; MFA, Utah State U., 1975.
Christensen, James Cal (1976) BA, MA, Brigham Young U., 1967, 1968.
Cindrich, Lawrence A. (1983) BFA, Carnegie Mellon U., 1959; MFA, Cranbrook Academy of Art, 1961.
Dansie, R. E. (Ted) (1972) BA, Brigham Young U., 1972.
Darais, Alexander B. (1954) BS, Brigham Young U., 1948; MFA, Claremont Graduate School, 1952.
Day, Michael D. (1983) BA, Brigham Young U., 1961; MA, San Jose State U., 1968; EdD, Stanford U., 1973.
Eddington, Keith (1979) BA, MFA, U. of Utah, 1947, 1950.
Gunn, Richard L. (1948) BS, MS, Brigham Young U., 1947, 1950; EdD, Stanford U., 1955.
Hill, Sherron D. (1981) BS, Weber State Coll., 1965; MA, PhD, U. of Iowa, 1971, 1973.

Johansen, Franz M. (1956) BA, MA, Brigham Young U., 1955, 1960.
Magleby, Francis R. (1959) BS, MS, Brigham Young U., 1950, 1951; EdD, Columbia U., 1967.
Moss, LaVelle R. (1987) BS, U. of Utah, 1964; MA, Brigham Young U., 1969.
Myer, Peter L. (1972) BA, Brigham Young U., 1956; MFA, U. of Utah, 1959.
Raty, Thomas Laine (1963) BS, MS, Brigham Young U., 1950, 1961; EdD, Arizona State U., 1985.
Sipherd, John W. (1976) BS, Utah State U., 1962; MA, California State U., Los Angeles, 1964.
Smith, Bruce Hixson (1977) BA, Brigham Young U., 1964; MFA, U. of Utah, 1968.
Takasaki, Fred Y. (1961) BA, MA, Brigham Young U., 1953, 1958; MA, U. of Michigan, 1968.
Tippetts, Frank M. (1958) BA, MA, Brigham Young U., 1953, 1962; EdD, Arizona State U., 1968.
Weaver, Max D. (1961) BS, MA, Utah State U., 1949, 1955.

Waray-Waray

See Center for Language Studies.

Welsh

See Center for Language Studies.

Western Studies

See Charles Redd Center for Western Studies in History section of this catalog.

Women's Research Institute

Bonnie Ballif-Spanvill, Director
1063 JFSB, (801) 422-4609

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

Research and Scholarship

The Women's Research Institute seeks to promote the scholarly investigation of female perspectives and experiences in diverse cultural and historical contexts. It provides access to a worldwide network of scholarship through the ongoing collaborative research it directs and its sponsorship of academic conferences and visiting scholars. Research projects focusing on women's unique patterns of development and learning, their viewpoints and contributions, and their involvement in families, religions, and societies throughout the world are created and funded through the institute.

Women's Studies Discipline

The women's studies minor educates students in the findings, theories, and methodologies fundamental to the women's studies field, while fostering critical thinking and superior scholarship. Considering traditional academic discourse from the female perspective allows new insights into our historical and cultural traditions.

Career Opportunities

A women's studies minor enhances and broadens educational and employment opportunities in any discipline or field. The women's studies minor trains students to look at issues and questions from unique perspectives, develop research skills, learn current theory, and deal with gender issues in society. This training prepares students to be more successful in graduate and professional schools, business and industry, and government or community service.

Minor Women's Studies (19 hours)

Minor Requirements

1. Complete the following:
   WS 222, 392R (two enrollments required), 492.
2. Complete two courses from the following:
   Engl 396.
   Hist 384.
   HFL 371.
   Pl Sc 472.
   Psych 306.
   Soc 367.
3. Complete two elective courses from the following:
   Hlth 450.
   Hist 378.
   HFL 461.
   NDFS 424.
   Soc 323 or 460.
   WS 390R, 499R (1–3 hours).

Women's Studies Courses (WS)

222. (WS–Soc) Introduction to Women's Studies. (3:3:0)
Survey of scholarship about women's lives; new historical, sociological, psychological, and literary approaches that inform our understanding of women's experience.

390R. Women's Studies Special Topics. (2–3:Arr.:Arr. ea.)
Subjects related to women's studies, including anthropology of gender, Russian women's history, women in the scriptures, British colonial writers, etc.

392R. Women's Studies Colloquium. (0.5:Arr.:0 ea.)
Scholarly findings presented by researchers on topics relating to women's lives and experiences throughout history, across the world, and within ethnic, educational, and economic segments of society.

492. Women's Studies Senior Research Seminar. (3:3:0)
Prerequisite: WS 222.
Synthesis of interdisciplinary studies of women; comparative analysis of methods used in research on women; group or individual senior research papers required.

499R. Independent Research. (1–3:Arr.:0 ea.) Prerequisite: instructor's consent.
Course-related instructional activities or laboratory/field research in women's studies issues.

Youth Leadership

See Recreation Management and Youth Leadership.

Zoology

See Integrative Biology, Physiology and Developmental Biology, and Plant and Animal Science sections of this catalog.

Division of Continuing Education

399 HCEB
(801) 422-4146

Dean: Richard C. Eddy
Associate Dean: Kenneth W. Anderson
Associate Dean: Wayne J. Lott
Assistant to the Dean—Financial and Administrative Services: Darin R. Oviatt
Assistant to the Dean—Special Projects: Scott L. Howell
Assistant to the Dean—Development: Gary L. Bauer

The purpose of the Division of Continuing Education is to provide educational programs and university services for part-time and off-campus students. These educational opportunities also assist regular daytime students. BYU cooperates with the Continuing Education programs sponsored by the Church Educational System and its components. The same university standards required of regular day students apply to those enrolled through the Division of Continuing Education while they are on campus.

Organization. Continuing Education programs represent both BYU and the Church Educational System, and the department and center descriptions will be distinguished in the material that follows.

Requirements for Enrollment in Continuing Education Classes

Noncredit classes are open to anyone having the desire and the necessary ability.

Credit classes are open to:

1. Matriculated students.
2. Anyone twenty-three years of age or older. (Some exceptions exist at the BYU Salt Lake Center.)
3. Individuals desiring to audit courses.
4. High school students in their junior or senior year who have a 3.0 GPA (may concurrently enroll in selected workshops and seminars if authorized by the University Admissions Committee).

Students who have been suspended from Brigham Young University or any other institution of higher learning for any reason are not eligible to register in Continuing Education credit classes until such suspension is cleared. Independent Study courses are an exception.

Enrollment Limitations. Persons enrolling in credit courses offered by the Division of Continuing Education who are officially admitted to the university can take any courses offered to a maximum of 18 credit hours per semester (9 hours per term). All others, twenty-three years of age and older, who have not been formally admitted to the university are limited to a maximum of 8.5 credit hours per semester (4 hours during spring or summer term). Contact the Division of Continuing Education for any additional conditions of enrollment.

Student Responsibility. Acceptance in a Continuing Education course *does not* constitute acceptance by BYU or any other university on a degree-seeking basis. It is the student's responsibility to gain admission to the university of his or her choice as a degree-seeking student through the normal procedures. At BYU students may accomplish this through the Office of Admissions.

Note: Students enrolled in the Division of Continuing Education would not be eligible for university employment, housing, or financial aid except for that assistance available to part-time students through the Division of Continuing Education.

Departments and Programs

Evening Classes

Scott L. Howell, Director
122 HCEB
(801) 422-2872

The Department of Evening Classes is a nondegree-awarding university program whose mission is to support academic departments and colleges by offering multiple sections of nearly 900 courses each year into the evening hours. The department also supports limited enrollments for students from the community who are at least 23 years of age. Tuition rates for courses taught through Evening Classes are equivalent to those taught during the day.

All courses taught through Evening Classes are listed online in the university's official class schedule at http://saas.byu.edu/classschedule/current.aspx and also at the home page for Evening Classes at http://ce.byu.edu/ev/

Independent Study

R. Dwight Laws, Director
209 HCEB
(801) 422-2868

Independent Study is a university "outreach program" that can bring BYU to students anytime, anywhere. Through Independent Study, BYU offers nearly 250 college-level credit courses, providing a practical and flexible solution for university students with scheduling problems and for working students, armed forces personnel, teachers, and others who cannot take all their classes in residence.

Up to 36 semester hours of work completed through Independent Study can be used toward a bachelor's degree from BYU, and courses are also available for teacher recertification. Individual high school–level courses, a full-curriculum high school transcript program, and noncredit courses for personal development and enrichment are also available.

Students may register for an Independent Study course at any time during the year. Catalogs are available without charge and list all the courses available, current fees, and enrollment policies and procedures. Students are given one year to complete a course, although most do so in less time.

Independent Study now has most courses on the Internet at http://elearn.byu.edu

Conferences and Workshops

Steven W. Taggart, Director
130 HCEB
(801) 422-3559

The Department of Conferences and Workshops works jointly with the university's colleges, schools, and departments in offering hundreds of outreach programs per year. A variety of both credit and noncredit programs are offered, including conferences, workshops, symposia, short courses, seminars, association meetings, test-prep courses, and youth camps. These programs use both campus and off-campus facilities in extending

university offerings to alumni, youth, the campus community, and other adults.

For a comprehensive listing of courses or for information on how we can help you plan a conference, visit our Web site at http://conferences.byu.edu

BYU Conference Center

Spencer E. Hansen, Manager
2255 CONF
(801) 422-7700

The BYU Conference Center is located east of the Marriott Center and adjacent to the Harman Continuing Education Building. The primary host facility for conference guests on campus, it is especially equipped to provide a favorable learning environment for guests participating in conferences, workshops, training seminars, and other educational programs. University units may sponsor or cosponsor conference center events. When certain qualifications are met, off-campus professional, government, corporate, civic, religious, family, or community organizations may also schedule events. The center is not available to promote a product or service or for other entrepreneurial efforts.

Those interested in scheduling the center are invited to contact the BYU Conference Center.

CES Adult Programs

R. Neil Carlile, Director
297 HCEB
(801) 422-7380

Church Educational System Continuing Education annually provides more than 300 religious education programs to more than 70,000 adult and youth patrons throughout the United States and Canada. These programs are designed to be spiritually strengthening, to inspire lifelong learning and service, to extend the blessings of learning, and to develop friends for the Church and the university. The primary programs offered are Adult Religion Classes, Best of Especially for Youth programs, Scripture Seminars, and Family Relations Seminars.

In addition, the department organizes Campus Education Week, which has been held at BYU since 1922. Featuring 1,000 classes and 200 presenters, this program serves approximately 22,000 students coming from each of the United States and several other countries.

CES Youth Programs

Gregory M. Tanner, Director
164 HCEB
(801) 422-3817

Especially for Youth, youth conferences, and other enrichment programs are offered to youth by CES Youth Programs, both on the BYU campus and at localities nationwide. More than 60,000 participants are served, coming from virtually every state and province in the United States and Canada and from several foreign countries.

BYU Salt Lake Center for Continuing Education

Lee J. Glines, Director
3 Triad Center, Suite 100
345 West North Temple Street
Salt Lake City, UT 84180
Telephone: (801) 933-9400
Internet: http://ce.byu.edu/sl/slc.htm

As the continuing education arm of the university in the Salt Lake Valley, the BYU Salt Lake Center offers courses through colleges and departments of the university. Most classes are held at night, making it possible for full-time and part-time students to take many of their required courses as well as general education and elective courses in Salt Lake City. Register for BYU Salt Lake Center classes by using the online registration screens on Route Y.

Students not admitted to Brigham Young University are welcome to take classes at the BYU Salt Lake Center provided they have earned a high school diploma (or passed the GED), are willing to live by the CES Honor Code and the BYU Dress and Grooming Standards, have received an ecclesiastical endorsement, and have been cleared for enrollment at the center.

Former BYU students (over two years ago) or other individuals at least 23 years of age who have earned 30 or more credit hours at the BYU campus in Provo may pursue the bachelor of general studies degree through the BYU Salt Lake Center. For admission and program details, see the Bachelor of General Studies section below.

The executive MPA (Master of Public Administration) program is offered at the center, allowing students to pursue a master's degree by attending classes at night each week while continuing to work during the day.

Professional development courses, a certification program in family history, and personal enrichment courses are also offered at the BYU Salt Lake Center.

Class schedules for each semester or term are available at the Web address noted above, at the BYU Web site, or on online registration system screens. Print versions can be obtained by contacting the BYU Salt Lake Center or picking them up at the information desk in the Wilkinson Student Center, the Smoot Administration Building, or the Harman Continuing Education Building. BYU Salt Lake Center Classes are also listed in the online BYU class schedules.

Bachelor of General Studies Program (BGS)

Ellen Allred, Director
315 HCEB
(801) 422-4351, toll-free 888-298-3137

Brigham Young University's Bachelor of General Studies (BGS) Program offers former BYU students who are no longer able to attend BYU and have been away from the university for two or more years an opportunity to complete their bachelor's degree from home. Applicants must have already completed 30 credit hours at the BYU campus in Provo as an admitted day student and must abide by the Church Educational System Honor Code and receive an annual ecclesiastical endorsement. This program is not available to current BYU continuing day students.

Admission to Degree Program

Applicants complete the admissions procedure through the Bachelor of General Studies Office and pay a fee of $30. The BGS program is open to former students who meet all of the following criteria:

- Have completed a minimum of 30 semester hours of BYU on-campus credit in Provo as an admitted day student.
- Have not completed any courses as a BYU day continuing student in the last two years.
- Have never completed a bachelor's or higher degree.
- Are in good standing (academic, financial, etc.) at all universities attended.
- Have a 2.0 or higher BYU and cumulative GPA. (If any academic disciplinary action—warning, probation, or suspension—has been taken against you, contact the BGS Office before proceeding with the application process.)
- Will abide by the Church Educational System Honor Code and receive an annual ecclesiastical endorsement.
- Have been approved by the BGS admissions committee.
- Have successfully completed the StDev 100 course (1-credit-hour Independent Study course taken **after provisional acceptance into program).**

The Discipline

The bachelor of general studies degree is designed to help former BYU students utilize their previously earned credit as much as possible. The BGS uses the same BYU curriculum offered on campus and requires the same general education, religious

education, and campus residency as on-campus degrees. Up to 90 of the required 120 credit hours may be earned through Independent Study. The major is general studies, with an emphasis in one of eight areas of study. The emphasis adds a measure of specialization and can be completed in one of the following areas: American studies, English and American literature, family history, family life, history, management, psychology, or writing.

Students may earn only one emphasis and do not have the option of creating custom-made areas of study. However, within the number of general electives available, students can utilize credit previously earned in a former major or choose to take courses in a particular concentration.

The BGS is a fully accredited bachelor's degree from Brigham Young University. Students pursue this program for a variety of reasons. Some desire a sense of accomplishment—to complete a degree they began years ago. Others are looking for career advancement or to eventually pursue a postgraduate degree.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BGS Bachelor of General Studies
- Emphases
  - American Studies
  - English and American Literature
  - Family History
  - Family Life
  - History
  - Management
  - Psychology
  - Writing

Students should see the BGS office for help or information concerning the undergraduate programs.

General Information

To earn a bachelor of general studies degree, students must complete the following requirements:

1. A minimum of 120 semester hours of earned credit, which breaks down as follows:
   - StDev 100 Independent Study course . . . . . 1 hour
   - University core. . . . . 48.5 hours minimum
   - Emphasis requirements . . . . . 30 hours
   - StDev 490 Independent Study course . . . . . 2 hours
   - General electives. . . . . 9–39 hours
2. 30 hours of BYU campus residency
3. 40 credit hours of 300- or 400-level courses, including 15 hours in the emphasis.

The following policies also apply:

1. A minimum of 10 hours in the area of emphasis must be enrolled in and completed through BYU **after** formal admission to the BGS program. All emphasis courses taken after admission to BGS must be BYU courses.
2. Students must earn a minimum 2.0 BYU, cumulative, and emphasis grade point average (management emphasis requires 2.25).
3. The program must be completed in eight years (or fewer).

BGS course and credit requirements can be filled in the following ways:

Prior Courses and Credits Transferred into the Program

1. Credits earned previously through BYU.
2. Credits earned previously at accredited colleges and universities.

Courses and Credits Earned After Admission to the Program

Once admitted to the BGS program, it is expected that any remaining course work will be completed through BYU. This can be done in the following ways:

1. Courses completed through BYU Independent Study.
2. Courses completed at the BYU Salt Lake Center.
3. Courses completed through BYU Evening Classes.
4. Courses completed at BYU during spring and summer terms.

BGS General Studies: American Studies Emphasis

(33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Econ 110.
   Hist 220, 221.
   Pl Sc 110.
3. Complete 18 hours from the following:
   A Htg 100.
   Engl 293, 336, 361, 362, 363.
   Geog 250.
   Hist 373, 378, 400.
   Pl Sc 316, 321.

   The following BYU campus courses may be used to satisfy emphasis elective requirements:
   - Any American Studies course.
   - Art history and curatorial studies dealing with American art and architecture.
   - English courses dealing with American literature.
   - History courses dealing with American history.
   - Native American Studies.
   - Political science courses dealing specifically with the American political system and thought.
   - Humanities courses dealing with American humanities.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: English and American Literature Emphasis (33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Engl 251.
   And complete two courses from the following:
   Engl 291, 292, 293.
3. Complete 18 hours from the following:
   Engl 336, 350, 361, 362, 363, 366, 374, 382, 385, 395R (section 1), 420.

   BYU campus courses as follows:
   Any English courses dealing with English and American literature may also be used to satisfy emphasis elective requirements.

4. Complete the following as the last course in the emphasis:
   Engl 495 (section 3).
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: Family History Emphasis

(33 hours)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. In collaboration with a BGS advisor, select a geographic area of interest (i.e., United States, New England, Latin America, British Isles, Europe, etc.) and select options that correspond to that area.
3. Recommended foundational course (may count toward religion credits):
   Rel C 261.
4. Complete the following introductory course:
   Hist 400.
5. Complete one of the following social history courses:
   Hist 319, 378.
6. Complete one of the following handwriting courses:
   Germ 490R (section 3).
   Hist 390R (section 1), 421.
7. Complete two of the following area source courses:
   Hist 403, 404, 409R (section 1), 411R, 413, 414, 415.
8. Complete one of the following area history courses:
   Hist 220, 252, 322.
   Geog 250.
9. Complete 6 hours from the following elective courses (including any family history research courses not used for core above):
   Engl 220.
   Hist 481R, 496R.
   Rel C 393R (section 6).

   Note: A maximum of 3 hours of directed research and/or internship credit can be counted toward the 6 hours of electives.
10. Complete the following two courses as the last courses in the emphasis:
    Hist 433, 482.
11. Complete the following capstone course:
    StDev 490.

BGS General Studies: Family Life Emphasis

(33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   FamLf 100.
   HFL 260.
   MFHD 160, 210.
3. Complete one course from the following:
   HFL 223, 224.
   MFHD 240.
4. Complete 15 hours from the following elective courses:
   CPSE 515R (section 2).
   El Ed 340, 515R (section 1).
   Engl 420.
   HFL 110.
   Hlth 370, 466.
   Hist 319, 378, 400, 433.
   IP&T 515R (section 26).
   NDFS 100.
   Psych 306, 320, 321, 322, 341.
   Rel C 261.
   Any core course not used above.
   BYU campus courses as follows:
   Courses from the School of Family Life (marriage, family, and human development; home and family living; family life) may also be used to satisfy the emphasis elective requirements.
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: History Emphasis (33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Hist 201, 202, 220, 221.
3. Complete 18 hours from the following (at least one course must be chosen from each of three of the four following geographic areas):
   a. Asia or the Near East
      Hist 340, 341.
      NES 398R (section 1).
   b. Europe
      Hist 319, 322, 323, 331.
   c. Latin America
      Hist 252.
   d. United States
      Hist 373, 378, 400.

   BYU campus courses as follows:
   Any BYU courses in history (not including family history) may also be used to satisfy the emphasis elective requirements.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: Management Emphasis

(33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following pre-core courses:
   I Sys 100, 101.
3. Then complete the following core 1 courses:
   Acc 200.
   Econ 110.
   Stat 221.
4. Next complete the following core 2 courses:
   Bus M 300, 340.
   M Com 320.
   Org B 320, 400.
5. Then complete two courses from the following:
   Acc 210, 241.
   Bus M 430.
   ManEc 300, 453.
   Org B 327, 347.
6. Complete the following capstone course:
   StDev 490.

Note: At least four 300-level or above courses (either 11 or 12 credit hours) must be BYU courses.

Note: Emphasis requirements must be filled with credit less than 15 years old.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: Psychology Emphasis

(33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   Psych 111, 301.
   And complete two courses from the following:
   Psych 320, 321, 322, 341, 342.
3. Complete 17 hours from the following (including any courses not used for core above):
   Anthr 101.
   Psych 240, 306, 330, 338, 358, 359, 361, 365, 370.

   BYU campus courses as follows:
   Any BYU course in psychology may be used to satisfy the emphasis elective requirement.
4. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

BGS General Studies: Writing Emphasis (33 hours*)

Emphasis Requirements

1. Complete the following prerequisite course:
   StDev 100.
2. Complete the following core courses:
   ELang 322.
   Engl 218R.
   M Com 320.
   And one additional advanced writing course from the following:
   Engl 312, 313, 314, 315, 316.
3. Complete 15 hours from the following:
   ELang 350.
   Engl 220, 319R, 320R.
   Hist 433.
   IP&T 515R (section 8).
   TMA 251.

   BYU campus courses as follows:
   BYU campus courses dealing with writing or the teaching of writing under English, theatre and media arts, communications, or foreign languages may also be used to satisfy the emphasis elective requirements. Only one additional GE Advanced Written and Oral Communication course (Engl 312, 313, 314, 315, and 316) may be used to satisfy the emphasis elective requirements.
4. Complete the following as the last course in the emphasis:
   Engl 495 (section 5 or 9).
5. Complete the following capstone course:
   StDev 490.

*Hours include courses that may fulfill university core requirements.

Services Available on Campus

Academic Support Office

2500 WSC
(801) 422-2723
E-mail: academic_support@byu.edu

The purpose of the Academic Support Office is to promote students' academic success and assist students experiencing academic difficulties. Programs offered or coordinated by the office include academic advising, policy development, student notification, and research.

Students with deficient academic standings are notified by the office following each semester or term of a student's enrollment. This notification and the follow-up contact programs are intended to be positive in nature and are designed to increase academic effectiveness and help students attain their educational goals.

Faculty members may request information about the academic status of a student enrolled in one of their classes for the purpose of assisting the student, as well as materials to improve the student's study skills. Faculty are also encouraged to refer students who show academic deficiencies to the Academic Support Office for help.

See the Academic Standards section at the front of this catalog for details of BYU's academic standards.

Alumni Association

Background

The Alumni Association was organized in 1893 to promote the general welfare of Brigham Young University. Today it serves more than 350,000 alumni and provides several valuable services and programs for students still at the university.

Membership Prerequisites

All graduates and former students with 24+ credits are considered members of the Alumni Association. There are no dues or membership drives; the association encourages contributions to BYU.

Services to Students

Services to students on the campus include the college-related Student Alumni Relations Committee, BYU Alumni Association Replenishment Grants (for students), meeting facilities in the Alumni House, the commencement checklist for graduates, and operation of the Student Alumni Association.

Services to Alumni

Services to alumni include many on-campus programs during Homecoming and commencement and other times during the year. Alumni have access to bookstore, library, and physical education facilities; they can receive counseling and job placement assistance; and they can get discounts at select BYU events by using a BYU Alumni Membership benefits card, which is available at the Alumni House. Other benefits include life, health, auto, and home insurance programs; access to an alumni directory; BYU and other merchandise on the Web site; and use of the Aspen Grove Family Camp behind Mt. Timpanogos. Graduates also receive the *BYU Magazine*.

Off-campus, BYU has an active chapters program with more than 145 organizations worldwide designed to reconnect alumni and further the mission of BYU. This community of alumni meet for education programs, firesides, athletic and cultural events, and other activities, including raising Replenishment Grants for students in their chapter boundaries.

Information

For informatin about these and other benefits, contact the Alumni Association, Alumni House, 133 ALUM, (801) 422-4663 or 1-800-437-4663, or visit the alumni Web site at alumni.byu.edu/.

Bookstore

3970 WSC, Provo, UT 84602-7904
Information: (801) 422-2400 (hours, information, sales promotions)
Receptionist: (801) 422-3007
Fax: (801) 422-0061
E-mail: bookstore@byu.edu
Internet: www.byubookstore.com

The BYU Bookstore is an institutionally owned auxiliary support unit of Brigham Young University. As a department of Student Auxiliary Services, the BYU Bookstore has retail responsibilities unique to the university environment and distinctive to a religious university governed by The Church of Jesus Christ of Latter-day Saints.

The BYU Bookstore's central purpose is to be a partner in the university educational process by providing course materials and merchandise at the lowest possible prices to Brigham Young University students, faculty, and staff. At the end of each semester the Bookstore buys back used textbooks needed on campus for the following semester or term.

Augmenting the Textbook Department are a convenience store and fifteen other departments that exist to meet the ever-changing needs of students and employees: men's clothing, women's clothing, children's book, general book, religious book, computer, computer repair, school supplies, art and frame, candy, photo, Cougarwear, music and video, shipping, and gift departments. A Wells Fargo Bank branch is located inside the store, as well as an ATG Wireless stand.

The BYU Bookstore Web site provides access to textbook information and allows 24-hour shopping from an ever-expanding merchandise selection.

Bookstore Hours

Monday–Friday	7:50 a.m. to 6:00 p.m.
Saturday	10:00 a.m. to 6:00 p.m.

Twilight Zone Convenience Store Hours

Monday and Friday	7:30 a.m. to 7:00 p.m.
Tuesday–Thursday	7:30 a.m. to 9:30 p.m.
Saturday	9:30 a.m. to 6:00 p.m.

Campus Life

University Accessibility Center

1520 WSC
(801) 422-2767 / 422-0436tty
Video phone: (801) 422-4472
Fax: (801) 422-0174
E-mail: uac@byu.edu
Internet: http://campuslife.byu.edu/uac

The UAC works to assure that students with disabilities are provided access to university programs. A variety of services and

extensive information is available. Provision of services is contingent upon appropriate documentation of a disability.

Students with mobility impairments and chronic illnesses are encouraged to seek help in ensuring accessibility to classes and other accommodations. Deaf and hard of hearing students may obtain the services of qualified sign language interpreters, real-time captioners, assistive listening devices, and notetakers. Students with visual impairments may have the assistance of volunteer readers, volunteer notetakers, library lockers, VisualTeks, alternative format textbooks, braille writers, or an adapted computer with enlarged characters and speech synthesis. Other appropriate academic accommodations are available as needed.

Possible services for students with learning disabilities, attention-deficit /hyperactivity disorders, or qualifying psychiatric disabilities include educational assessment, educational/learning advisement, and, as needed, classroom or curriculum accommodations. In addition, help is offered in determining appropriate class loads and preparing for a career.

Students with a disability may contact the office Monday through Friday, 8–5 p.m., (801) 422-2767, to schedule an appointment with a counselor. Deaf students may contact the office by e-mail or video phone.

Women's Services and Resources

1520 WSC
(801) 422-4877

Women's Services and Resources is a place of support for all women on the BYU campus. WSR offers help for reentry students, single mothers, vicims of sexual assault or relationship violence, loved ones of men with pornography problems, and women struggling with depression, anxiety, body image, eating problems, or relationship issues. A wide variety of support groups and other activities are offered by WSR throughout the year in an effort to support, educate, and inspire the women of BYU.

Campus Craft and Floral

1021 WSC
(801) 422-2840

Campus Craft and Floral is the on-campus source for flowers, scrapbooking supplies, and gifts. Located on the bottom floor of the BYU Wilkinson Student Center, it provides students and faculty with quality products, guaranteed service, timely delivery, and competitive prices.

Campus Craft and Floral specializes in custom designs for special occasions and has the resources, reputation, and knowledgeable staff to help with any floral needs, including offering daily on- and off-campus delivery.

Campus Visits

Students desiring to visit campus are encouraged to schedule a tour through the Office of School Relations—Campus Visits, Visitors Center (VCTR), (801) 422-4431. Tours are tailored to the individual student's needs, and appointments with advisement centers can be arranged as requested. Please schedule tours at least two weeks prior to your campus visit.

Comprehensive Clinic

Judy Norman, Director
239 TLRB,
(801) 422-3628

The Comprehensive Clinic is a training and research center that houses several of the clinical training programs of the university. These include clinical psychology, marriage and family therapy, social work, and communicative disorders. Available to community people and BYU families, services of the Comprehensive Clinic include:

1. Counseling for depression, anxiety, low self-esteem, strong fears, marital discord, divorce adjustment, child behavior and family problems, premarital concerns, and sexual dysfunction.
2. Speech disorders and voice disorders.
3. Evaluation of hearing loss, adequacy of hearing aids.

Depending on the services provided, fees may be charged, ranging from a minimal charge to full professional rates. Family size and income, university affiliation, equipment utilized, and other factors are considered.

LDS Family Services, Provo, offering individual and family counseling, as well as adoption, foster care, and unwed mother services, is also located in the Comprehensive Clinic.

Computers

Students who are considering the purchase of a personal computer should note the following information:

BYU offers a discount on the purchase of various computer hardware and software products, saving students a significant amount on new computer merchandise. These educational discounts are available to registered students, faculty, and staff. (Some vendors do require full-time status.) The Computer Department also offers a large selection of used computers and refurbished iPods.

For specific information please contact the Bookstore, (801) 422-7119.

Counseling Services

The clinical counseling area offers treatment or referral for developmental, emotional, or interpersonal difficulties that arise during the educational process. Counseling services are oriented toward short-term interventions designed to help students develop self-reliance and succeed in their role as students. Counseling is available for a broad range of emotional concerns, including depression, anxiety, eating disorders, interpersonal challenges, sexual addictions, sexual assault or abuse issues, and gender identity issues, among others.

Counseling Services

1500 WSC
(801) 422-3035
Fax: (801) 422-0173
Web: http://ccc.byu.edu/counseling/

Eligibility: Full-time and 3/4 time matriculated students at the BYU Provo campus are eligible to receive counseling services provided by professional counselors and counselors in training, who operate within established limits of confidentiality. Without written permission from the student, personal information is not released to any third party. Services include individual, couples, and group counseling as well as psychiatric consultation for clients of the center. Individual and group counseling services are oriented toward short-term intervention to help students surmount obstacles to a successful academic experience.

Stress Management/Biofeedback Lab

1582 WSC
(801) 422-7261
Web: http://ccc.byu.edu/counseling/managing.php

The Stress Management Lab is available to full-time students desiring to improve their skills in dealing with stress in their academic and personal lives. Audio tapes, printed materials, consultations with a stress-management specialist, and biofeedback training, which increases the ability to relax and reduce tension in the body with the aid of electronic instruments, are all available. Lab resources are tailored to individual concerns, and students are encouraged to visit the lab about four weeks to give their training a chance to work. Those desiring help beyond the skill training available in the lab can sign up for time with a professional counselor.

Dining Services

Dean A. Wright, Director
180 SASB
(801) 422-4935
E-mail: dining@byu.edu
Internet: www.byu.edu/dining/

BYU Dining Services is nationally recognized as a leader in collegiate food service programs, serving an average of 30,000 meals daily. Options range from full-service dining to grab-and-go meals. The new **Legends Grille,** located in the Student Athletic Center, features a wide range of fresh, healthy choices served in a sports setting that features eleven plasma-screen TVs. The **Skyroom Restaurant,** on the sixth floor of the WSC, offers full-service dining weekdays for lunch plus on-campus delivery. The **Cougareat Food Court,** on the main level of the WSC, includes choices such as Taco Bell, Teriyaki Stix, and Subway in addition to grill items, salad and soup, Italian selections, grab-and-go, pastries, and sweets. The **Museum Café,** in the Museum of Art, features specialty sandwiches, organic salads, soups, desserts, and beverages. The **Marketplace Café** in the atrium of the Tanner Building provides an old world marketplace and café featuring custom-made salads, a panini grill, and much more. The **Morris Center** and **Cannon Center** cafeterias are located at Deseret Towers and Helaman Halls, respectively, and provide students and guests buffet-style all-you-care-to-eat selections for every meal. Menus and hours for each area are posted on the Web. The **Creamery,** a dairy outlet and convenience store; the **Creamery on Ninth,** a full-service grocery with a 1950s-style ice cream counter and grill; and **Take-Out Catering,** a carry-out service for all food products produced at BYU, are located at the northeast corner of campus. **BYU Catering** can provide refreshments for a small group or a complete meal for thousands. Tomassito's Pizza is also available for free delivery campuswide.

BYU Concessions is unique in that fans may enjoy many local restaurants' food in the Marriott Center and the LaVell Edwards Stadium.

The Signature Card is welcomed in all Dining Services locations.

Equal Opportunity Office

Sue DeMartini, EEO Manager and 504 Coordinator
D-282 ASB
(801) 422-5895; 24-hour contact number: 367-5689

Brigham Young University does not allow unlawful discrimination based on race, color, national origin, religion, sex, age, veteran status, pregnancy, or disability in the academic or employment setting. This includes unlawful sexual harassment, which is a violation of university standards, as well as state and federal laws, and may be considered grounds for discipline. Persons who believe they have been unlawfully discriminated against or unlawfully sexually harassed should contact the Equal Opportunity Office. Training on Title VII and Title IX issues is available by calling 422-3863.

First-Year Experience Office

R. Steven Turley, Associate Dean
185 TMCB
(801) 422-4243
E-mail: fye@byu.edu

In support of the mission of undergraduate education, the First-Year Experience Office has the primary purpose of coordinating and strengthening programs aimed at students during their first year at the university. To improve these experiences the office collects data, reviews literature, examines current and proposed programs, and collaborates with other units. Major initiatives at present are Freshman Academy, leadership of New Student Orientation (a collaborative effort of several campus units), and development of a first-year seminar and peer mentors for first-year students.

Office of Information Technology

Kelly J. Flanagan, Information Technology Vice President and CIO
C-366 ASB
(801) 422-3142

Kelly C. McDonald, Assistant Information Technology Vice President
246 MB
(801) 422-5025

The Office of Information Technology offers a variety of products, services, and support to meet the technology needs of the campus community. Following are a few examples:

- *Route Y:* AIM, basic e-mail, Blackboard, personal information, scholarship application, the Student Handbook, and the BYU Telephone Directory are some of the numerous campus applications available to students.
- *Network Access:* Computer labs, offices, resident halls, and public ports receive high-speed access to BYU's network, e-mail, and the Internet.
- *Computer Labs:* Open computer labs are available with basic applications such as MS Office, an Internet browser, and printers.
- *Computer Rental:* Refurbished computers preloaded with software are available for student rental.
- *Media Equipment Delivery:* Students needing equipment, such as CD or DVD players and video projectors, for classroom presentations may place orders through their class instructor.

For more information about the above products or other Office of Information Technology products, see our Web site at http://it.byu.edu, or call (801) 422-4000.

Multicultural Student Services

1320 WSC
(801) 422-3065
Internet: http://multicultural. byu.edu

Office Management

Lisa M. Muranaka, Director
Darin Eckton, Assistant Director
Diane Hill, Office Manager

Multicultural Student Services Staff

Anthony Bates, Advisor
Sam Brown, Advisor
Lucky Fonoimoana, Advisor
Jean Rainer, Advisor
Lynette Simmons, Advisor
LaVay Talk, Advisor

Office Mission

Multicultural Student Services is a unique team of multicultural specialists who value the total development of the multicultural student within the aims of a BYU education. The staff seeks to develop a BYU environment of "fellow citizenry" where multiculturalism can flourish: "Ye are no more strangers and foreigners, but fellowcitizens" (Ephesians 2:19).

Services Available to Students

Multicultural Advisement

Multicultural Student Services is an available support system that helps multicultural students to be successful in the university community. Advisors take advantage of every opportunity to assist the students and help them discover resources on campus that will further their academic, social, and spiritual success and help them work toward graduation.

Multicultural Scholarships

Students interested in applying for scholarships must be admitted to the university. Applications are available on the Web at http://saas.byu.edu/admissions. The comprehensive scholarship application must be completed at http://saas.byu.edu/dept_scholarships/application. Prospective students should apply for admission and scholarships simultaneously.

On-Campus Education

Multicultural diversity contributes positively to the development of students, staff, faculty, and the community. We value students for what they bring culturally to campus. Special programs are designed to awaken students to a sense of value and self-worth, provide leadership-training opportunities, educate and inform BYU students and the community, and promote inclusion.

Publications

Students report on campus interests, activities, and issues in the *Eagle's Eye*, a multicultural student magazine published once a year. The publication has a national circulation list that includes alumni, universities, businesses, and a wide range of minority organizations.

Recruitment and College Preparation Programs

Brigham Young University values diversity and seeks to enrich the campus environment with students from diverse cultural backgrounds. The MSS Office actively recruits multicultural students who are spiritually, academically, socially, and culturally prepared to enjoy and contribute to the campus community. In coordination with Admission Services, the MSS Office encourages prospective multicultural students to prepare for and seek opportunities in higher education.

Risk Management and Safety

Glenn Johns, Managing Director
TOMH
(801) 422-4468

The Risk Management and Safety Department seeks to find and eliminate or reduce risks associated with the operation of the university, its programs, activities, and other endeavors. Risk Management and Safety consults with individuals and departments to eliminate risks and procures insurance as necessary.

The department ensures proper safety programs and procedures, consults with campus personnel regarding safety concerns, and provides safety-related training. Training topics include hazardous communication (HazCom), radiation safety, driving courses (van, defensive, straight truck, CDL, and equipment), lab safety, fire safety, and CPR/first aid.

Compliance and training in federal, state, and local life safety, OSHA, and environmental regulations are also coordinated by the department, as are university insurance and workers' compensation programs for all full- and part-time employees.

The department manages the university emergency preparedness programs and coordinates with local and state emergency preparedness agencies to furnish information to all BYU personnel and students. This information includes CERT training, earthquake preparedness, building evacuation, and stake, ward, personal, and department preparedness.

Services for Single Parents

"The Resource Book for Successful Single Parent Students" is available at the Women's Services and Resources Office (1520 WSC). Individuals interested in networking with other single parents on campus can contact the Single Parents Association through LaNae Valentine at (801) 422-4877.

Signature Card

2310 WSC
(801) 422-3866
E-mail: signature_card@byu.edu
Internet: http://www.signaturecard.byu.edu/

The Signature Card is a debit account, utilizing the university ID card. Nearly all retail outlets on campus accept the Signature Card, including Dining Services, vending machines, the Bookstore, WSC retail operations, copy centers, designated copy machines, ticket offices, and computer labs. Deposits, account monitoring, and balance inquiries may be made through RouteY by selecting the Signature Card and Meal Plans icon. Deposits may also be made at Student Financial Services and at most locations displaying the Signature Card logo.

Billing and Customer's Rights

This notice contains important information about the cardholder's rights and Student Auxiliary Services' (SAS) responsibilities under the Federal Electronic Funds Transfer Act. To preserve the rights under this act the cardholder must notify SAS of any clerk, billing, or statement error within sixty days of the date when the error appeared on the cardholder's statement. The cardholder may contact SAS in writing at any time or call/visit the SAS office during regular office hours from 8:00 a.m. to 5:00 p.m. Monday through Friday, (801) 422-3866, Signature Card Office, 2310 WSC, Provo UT, 84602.

Should the cardholder lose the ID card, he or she should call the Signature Card Office at 422-3866 or notify a Dining Services cashier immediately. A flag will be placed on the cardholder's account to protect it from unauthorized users. Failure to notify the Signature Card office within two business days may increase the cardholder's liability for unauthorized transactions.

The Signature Card account is not a demand deposit account like a savings or checking account. Money "deposited" in the cardholder's Signature Card account purchases points that may be redeemed for services at locations displaying the BYU Signature Card logo. Money may be withdrawn from the cardholder's account for emergency purposes only. A $10 processing fee is charged for this type of transaction, and it can take up to 10 days to process the check.

There is a $10 processing fee to refund unused balances at the time when a Signature Card account is closed. Cardholder's are encouraged to spend the remaining balance in their account to avoid the check-processing fee.

Declining balance accounts that have remained inactive for a period of six months will be assessed a $5 service fee for each month they remain inactive. Inactive accounts without a balance will be closed. Patrons may contact Student Auxiliary Services to reopen a closed account.

At Dining Services' locations contracted meal plans are automatically assessed first. If sufficient funds are not available in a contracted meal plan to satisfy a transaction, the system will automatically cascade to the Signature Card account. Following automatic cascading if an account still does not have sufficient funds to complete the transaction, the remaining balance will need to be paid with cash.

Brigham Young University reserves the right to set the account balance to a negative amount when the account balance has insufficient funds to post an *off-line-card read* transaction.

Signature Card ID Center

2310 WSC
(801) 422-3866

Hours:	Monday–Friday	7:00 a.m. to 7:00 p.m.
	Saturday	10:00 a.m. to 3:00 p.m.

The Signature Card ID Center provides BYU photo identification cards. In addition to identification on campus, these cards may be used for library services, building access, Signature Card debit accounts, and meal plans. Students desiring a new ID card should

bring a form of photo identification. There is no fee for the initial card. Dress and grooming standards as outlined by the university must be observed to obtain a card. Please see our Web site, http://www.signaturecard.byu.edu/idcenter/, for more information.

Wilkinson Student Center

Dean of Students
3500 WSC
(801) 422-4771

The Wilkinson Student Center is the community center of Brigham Young University. With a primary focus on student services, it enriches the quality of university community life for faculty, staff, alumni, and guests. The WSC houses organizations that enhance student development and personal growth, and it provides a place for building character, strengthening spirit, and enlarging intellect, which lead students to lifelong learning and service. It also provides essential services and conveniences for members of the university community and creates an environment for formal and informal social interaction. The Wilkinson Student Center celebrates traditions, fosters the "Spirit of the Y," and cultivates an enduring sense of belonging to the university. Under the direction of the dean of students, the center offers a variety of programs, activities, services, and facilities that, when taken together, bless and strengthen lives.

The WSC is open on the following schedule:

Monday–Thursday	6:00 a.m. to 11:00 p.m.
Friday	6:00 a.m. to midnight
Saturday	6:00 a.m. to 11:30 p.m.
Sunday	6:00 a.m. to 10:00 p.m.

First Floor

Businesses: Cougar Creations (1010) (copy center), Barbershop (1030), Campus Craft and Floral (1021), Games Center (1171), Outdoors Unlimited (1151) (rental, sales, repairs, and programs), and the Post Office (1131).

Services: Computer Lab (1111), Multicultural Student Services (1320), International Services (1351), Women's Services and Resources (1520), University Accessibility Center, Counseling and Career Center (1500–1520), custodial offices and supply area (1086), Lost and Found (1086), and EMT's office. Two lounges and a vending area are also on this floor.

Second Floor

Businesses: Jamba Juice (2040), and the Cougareat.

Services: Memorial Hall, Varsity Theatre (2030), Signature Card and ID Center (2310), Information Center, Dining Services, and Off-Campus Housing (2170), Student Employment Offices (2024), the Center for Service and Learning main office (2010), and the Involvement Center (2330). The Counseling and Career Center includes: Job Search Assistance (2410), University Advisement and Academic Support (2500), and Career and Learning Information (2590).

Rooms Available to Schedule Through Campus Scheduling: The Terrace, Garden Court, east and main ballroom, east lounge, 2142, and 2152.

Third Floor

Services: Dean of Students Office (3500), Student Leadership Offices (3400), Campus Scheduling (3371), WSC Business Support (3371), Guest Services (3326B), Preprofessional Advisement (3526), and Catering Offices (3243 and 3245).

Rooms Available to Rent Through Campus Scheduling: Rooms 3211 to 3290 (and 3380). (**Note:** Rooms 3260 to 3264 are entrances to the President's Room and are not available for rent.)

Fourth Floor

Services: Faculty Center (4450), Honor Code Office (4440), and Center for Conflict Resolution (4412).

Fifth Floor

Services: Dining Services.

Rooms Available to Schedule/Rent Through Campus Scheduling: Various conference and/or meeting rooms.

Sixth Floor

Businesses: Skyroom Restaurant.

WSC Information Center

Main Floor WSC
(801) 422-4313

The WSC Information Center answers questions for hundreds of people each day. It has current pamphlets, directories, catalogs, class schedules, bus schedules, and other informational packets. Fall/Winter hours are Monday through Friday from 8 a.m. to 6 p.m. and Saturday from 9 a.m. to 1 p.m. Spring/Summer hours are Monday through Friday from 9 a.m. to 5 p.m. and Saturday from 9 a.m. to 1 p.m. It also serves as an outlet for ticket sales for various campus activities.

BYU Lost and Found

First Floor, WSC
(801) 422-3024

The BYU Lost and Found serves both those who have lost items of value and those who find them. The university strongly urges students and others to put their names and other personal information on their possessions and encourages everyone to turn found items in to the Lost and Found immediately.

Approximately 60 percent of the items turned in to Lost and Found are quickly returned to their owners. All unclaimed items are held for two months then stored and eventually sold at an annual sale.

Hours are from 9 a.m. to 5:30 p.m. Monday through Friday.

BYU Student Service Association (BYUSA)

Third Floor, WSC
(801) 422-3901

The mission of the BYU Student Service Association is to strengthen students in their social relationships, civic duty, and service to humankind. Through student leadership the university community works together to achieve our goal that all who "enter to learn" will be prepared by training and experience to "go forth to serve." BYUSA houses the Student Advisory Council, which serves as a resource to the university administration regarding students' concerns.

Any student who wants to serve as a volunteer in community service programming or campus activities, in a campus club, on the Homecoming committee, or with programs such as Y Days is invited to become involved.

Ideas for making our university community a better place to learn and to live are also warmly accepted. Students may either come to the Involvement Office or call. There is a place for everyone in the BYU Student Service Association.

Guest Services

Third Floor, WSC
(801) 422-5672

The mission of Guest Services is to provide customer service at dances and events held in the Wilkinson Student Center. This includes building and customer safety and liability. The Guest Services staff includes the WSC after-hours building coordinators, events staff, and student assistants.

Employment Services

Student Employment Office

2024 WSC
(801) 422-3561
E-mail: student_hire@byu.edu

The Student Employment Office is located on the main floor of the Wilkinson Student Center. Its primary purpose is to assist students in finding jobs on campus.

Many job opportunities are available, ranging from custodial to clerical positions. Although many employers offer flexible work hours, it is easier to obtain work if students can arrange their schedule to have a four-hour block available at the same time each day. Some of the more common work shifts are:

4:00 a.m.–8:00 a.m.
8:00 a.m.–Noon
9:00 a.m.–1:00 p.m.
1:00 p.m.–5:00 p.m.

Most jobs on campus are listed through the Student Employment Online System. However, some academic departments select from their own students for reading, grading, and research and teaching assistant positions. The Missionary Training Center (MTC) accepts applications from returned missionaries and those who have native foreign language skills. Applications should be submitted online at http://mtc.byu.edu.

The Office Skills Test (OST) is offered in the Student Employment Office from 8:00 a.m. to 4:00 p.m. Monday through Friday. This test is required for most clerical jobs. The OST offers tests in a variety of areas, including typing, filing, and data entry. Students may take any or all of these tests. Math, spelling, and ten-key tests may be taken as requested by the department.

U.S. undergraduate students are required to carry and maintain a minimum of 9 credit hours per semester during fall and winter. International undergraduate students are required to take a minimum of 12 credit hours per semester during fall and winter. U.S. graduate students are required to carry 2 credit hours per semester and be accepted into a graduate program. International graduate students are required to take 9 credit hours per semester and be accepted into a graduate program.

Certain governmental restrictions are placed on students from foreign countries. All international students are required to contact International Services, 1351 WSC, to determine their work eligibility prior to going to the Student Employment Office.

Federal immigration regulations require everyone hired in the U.S. to prove work eligibility and establish identity. To be employed on campus all students must provide a U.S. social security card for Internal Revenue Service (IRS) purposes. U.S. citizens may use either a passport to establish identity and prove employment eligibility or a combination of two forms of acceptable ID. International students must provide acceptable ID that includes an I-20 and a current passport with an I-94 attached.

Students hired for on-campus jobs through Student Employment agree to observe the BYU Honor Code and the Dress and Grooming Standards.

Student Health Center

2300 SHC, (801) 422-2771

Rulon J. Barlow, Administrative Director
Keith D. Willmore, MD, Medical Director
Gary B. Brimley, Assistant Director

Student health services are available at the Student Health Center for all students, spouses, and dependents of students at rates lower than those the community offers. Any student may receive services at the Health Center regardless of his or her insurance policy, although students can receive health care at an even greater discount by utilizing the student health plan. The Student Health Center is not a Medicare, Medicaid, or TriCare/Champus provider.

Health services are available from 8:00 a.m. until 6:00 p.m. Monday through Friday and from 8:00 a.m. until noon on Saturday. The Health Center is closed on Sunday and on all BYU holidays. Students can make an appointment by calling (801) 422-2771.

Services available at the Health Center include:

1. Consultation with a physician or nurse practitioner
2. Immunizations
3. Pharmacy
4. Physical therapy
5. Laboratory services
6. X-ray services
7. Pediatrics
8. Gynecology
9. Urgent care
10. Consultation with specialists in ENT, ophthalmology, orthopedics, internal medicine, podiatry, psychology and psychiatry, surgery, gynecology, and dietary and nutritional counseling, etc.

For more information contact the Student Health Center. The Student Health Center is bound by federal confidentiality laws. Personal information will not be released to a third party without written permission from the patient.

University Police, Parking Services, and Security

The University Police Department is established for the benefit and protection of students, faculty, and staff. The department's state-certified police officers are entrusted with enforcing laws. Student security, traffic, and parking-control employees are also utilized by the university to enforce campus rules and regulations.

All persons requiring emergency police assistance or fire or ambulance services should call 911. Non-emergency police assistance is available by calling (801) 422-2222 or by visiting the department at 2120 JKB.

Parking control is the responsibility of the University Police Parking Services, also located at 2120 JKB. All BYU students must register their motor vehicles and obtain a student parking permit with Parking Services.

Automobile Registration

Parking Services hours are from 7:30 a.m. to 5:00 p.m. Monday through Friday, except when the office is closed during the Tuesday devotional. To obtain a parking permit, register online through Route Y, or to obtain a permit in person, present the following:

1. Current state vehicle registration certificate
2. University identification card

Parking Permits

Parking permits are available at no cost to students, faculty, and staff. Parking is regstricted according to the zones listed.

Zone G: Graduate permit (valid in G and Y lots)
Zone Y: Students living off campus (valid in Y lots)

Note: Those living in family or foreign language housing are required to display a Y permit designated for those areas.

Zone Y/C: Student motorcycle (valid in student motorcycle areas)
Zone C: On-campus single housing (valid in C lots)
Zone A: Faculty and staff parking

Bicycle Registration

All bicycles operated or parked on campus must be licensed with a Utah County municipality. Provo city licenses are available for a fee of $1 at Parking Services.

Bicyclists must:

1. Always park bicycles in racks.
2. Never ride on sidewalks during class breaks.

3. Yield to pedestrians.
4. Obey *all* traffic rules.

Bicycles not parked in racks will be impounded. BYU will not be responsible for cut locks, chains, or cables. Locks, chains, or cables may be cut only when uniformed police or traffic personnel are present.

Other Regulations and Information

Neighborhoods adjoining campus are sometimes inundated with parked vehicles. Students are encouraged to obtain BYU parking permits and to park in university parking lots authorized by the permit.

Traffic regulation information may be obtained from Parking Services. It is the responsibility of all students, faculty, and staff members to obey all traffic rules and regulations.

Questions may be directed to Parking Services personnel at (801) 422-3906.

Appeals must be made within *fourteen* calendar days of the citation issue date. Otherwise the opportunity to appeal is forfeited. Hearing Office hours are from 9:00 a.m. to 4:00 p.m. Monday through Friday, except when the office is closed during the Tuesday devotional.

Individuals receiving seven or more citations in a twelve-month period (*whether paid or unpaid*) will have their campus driving and parking privileges revoked.

Veterans Support

A-41 ASB
(801) 422-2768
E-mail: veterans@byu.edu
Internet: http://saas.byu.edu/depts/veterans/

The Veterans Support Office certifies the enrollment of eligible veterans or their dependents for educational benefits from the U.S. Department of Veterans Affairs (VA). Information and help in applying for these benefits are available from this office.

Accreditation and Affiliations

Brigham Young University is fully accredited by the Northwest Commission on Colleges and Universities. In addition, many professional programs of the university are reviewed, evaluated, and accredited by national and state associations and boards.

The following organizations have given full accreditation to related programs at the university:

Accreditation Board for Engineering and Technology, Inc. (ABET) for the four-year programs leading to bachelor of science degrees in chemical engineering, civil engineering, computer engineering, computer science, electrical engineering, mechanical engineering
Accrediting Council for Education in Journalism and Mass Communications
American Alliance for Health, Physical Education, Recreation, and Dance
American Assembly of Collegiate Schools of Business
American Association for Health Education
American Association for Marriage and Family Therapy
American Association of Museums
American Bar Association
American Council for Construction Education
American Dietetic Association
American Institute of Graphic Arts
American Psychological Association
American Research Center in Egypt
American Society of Mammalogists
American Society of Media Photographers
American Speech, Language, Hearing Association
American Veterinary Medical Association
Associated Landscape Contractors Association
Association for Childhood Education International
Association for Educational Communications and Technology
Association of Systematics Collections
Collegiate Commission on Nursing Education
Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy
Commission on Accreditation of Allied Health Education Programs
Commission on Collegiate Nursing Education
Computer Science Accreditation Board/ABET
Computing Accreditation Comission of ABET
Council for Accreditation of Counseling and Related Educational Programs
Council for Exceptional Children
Council of Baccalaureate and Higher Degree Programs of the National League for Nursing
Council on Accreditation, National Recreation and Park Association
Council on Education for Public Health
Council on Social Work Education
Council on Technology Teacher Education
Educational Leadership Constituent Council
Institute of Food Technologists
International Facilities Management Association
International Society for Technology Education
International Technology Education Association
Joint Review Committee on Educational Programs in Athletic Training
National Accrediting Agency for Clinical Laboratory Sciences
National Association for the Education of Young Children
National Association of School Psychologists
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Association of Schools of Theatre
National Association of Sport and Physical Education
National Association of State Directors of Teacher Education and Certification
National Collegiate Athletic Association
National Council for Accreditation of Teacher Education
National Council for Social Sciences
National Council of Teachers of English
National Council of Teachers of Mathematics
National Environmental Health Association
National League for Nursing Accrediting Commission
National Science Teachers Association
Northwest Association of Secondary and Higher Schools
Northwest Commission on Colleges and Universities
Professional Landcare Network for the four-year program leading to a BS in landscape management
Public Relations Society of America
Society for Public Health Education
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (TAC/ABET) for the four-year program leading to a bachelor of science degree in manufacturing engineering technology
The Association to Advance Collegiate Schools of Business
The National Recreation and Parks Association
University Council of Educational Administration
Utah Office of Museum Services
Utah State Bar Association
Utah State Board of Nursing
Utah State Department of Education
Utah State Department of Public Instruction in cooperation with the United States Office of Education for the training of vocational home economics teachers.

Brigham Young University is affiliated with the following educational and professional associations:

Academia de la Investigacion Cientifica
Academy for Health Services Marketing
Academy of Financial Services
Academy of International Business
Academy of Management
Academy of Marketing Science
Acoustical Society of America
Actors Equity Association
Administrative Management Society
Alliance for Media Literate America
Alpha Kappa Delta
American Academy of Management
American Academy of Nurse Practitioners
American Academy of Religion
American Accounting Association
American Advertising Federation
American Agricultural Economics Association
American Alliance for Theatre and Education
American Anthropological Association
American-Arab Affairs Council
American Association for Advances in Health Care Research
American Association for Artificial Intelligence
American Association for Counseling and Development

American Association for Italian Studies
American Association for Leisure and Recreation
American Association for Public Opinion Research
American Association for the Advancement of Science
American Association for the Advancement of Slavic Studies
American Association of Adult and Continuing Education
American Association of Bovine Practitioners
American Association of Cereal Chemists
American Association of Colleges
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Association of Collegiate Registrars and Admissions Officers
American Association of Family and Consumer Sciences
American Association of Health Education
American Association of Higher Education
American Association of Investments
American Association of Museums
American Association of Petroleum Geologists
American Association of Physics Teachers
American Association of Presidents of Independent Colleges and Universities
American Association of Real Estate Appraisers
American Association of School Administrators
American Association of Small Ruminant Practitioners
American Association of State and Local History
American Association of Teachers of Arabic
American Association of Teachers of French
American Association of Teachers of German
American Association of Teachers of Italian
American Association of Teachers of Slavic and East European Languages
American Association of Teachers of Spanish and Portuguese
American Association of University Women
American Astronomical Society
American Bach Society
American Biological Safety Association
American Business Law Association
American Chemical Society
American Choral Directors Association
American College Dance Festival Association
American College of Health Administrators
American College of Health Care Executives
American College of Nutrition
American College of Sports Medicine
American College Personnel Association
American College Theatre Association
American Collegiate Retailing
American Comparative Literature Association
American Conference on Romanticism
American Council for the Teaching of Foreign Languages
American Council of Teachers of Russian
American Council on Consumer Interests
American Council on Education
American Crystallographic Association
American Dairy Science Association
American Dietetic Association
American DDR Studies Association
American Economics Association
American Educational Research Association
American Federation of Musicians
American Federation of Television and Radio Employees
American Film Institute
American Finance Association
American Geophysical Union
American Group Psychotherapy Association
American Guild of Musical Artists
American Guild of Organists
American Historical Association
American Hospital Association
American Industrial Hygiene Association
American Institute for Maghribi Studies
American Institute of Aeronautics and Astronautics
American Institute of Certified Public Accountants
American Institute of Chemical Engineers
American Institute of Design and Drafting
American Institute of Hydrology
American Institute of Organ Builders
American Institute of Physics
American Institute of Plant Engineers
American Library Association
American Liszt Society
American Management Association
American Marketing Association
American Mathematical Society
American Meat Science Association
American Musical Instrument Society
American Musicological Society
American Newspaper Publishers Association
American Nurses Association
American Oil Chemists' Society
American Philological Association
American Philosophical Association
American Physical Society
American Physiological Society
American Political Science Association
American Popular Culture Association
American Production and Inventory Control Society
American Psychological Association
American Psychological Society
American Public Health Association
American Public Radio
American Public Television Association
American Real Estate and Urban Economics Association
American Real Estate Society
American Risk and Insurance Association
American School Food Service Association
American School Health Association
American Schools of Construction
American Schools of Oriental Research
American Society for Biochemistry and Molecular Biology
American Society for Bone and Mineral Research
American Society for Clinical Nutrition
American Society for Engineering Education
American Society for Engineering Management
American Society for Horticultural Science
American Society for Mass Spectrometry
American Society for Microbiology
American Society for Nutritional Sciences
American Society for Public Administration
American Society for Quality
American Society for Testing and Materials
American Society for Theatre Research
American Society for Training and Development
American Society of Agriculture Engineers
American Society of Agronomy
American Society of Animal Science
American Society of Biochemistry and Molecular Biology
American Society of Church History
American Society of Civil Engineers
American Society of Composers, Authors, and Publishers
American Society of Eighteenth-Century Studies
American Society of Landscape Contractors
American Society of Mammalogists
American Society of Mechanical Engineers
American Society of Parenteral and Enteral Nutrition
American Society of Plant Biology
American Society of Public Accountants
American Society of Training and Development
American Sociological Association
American Statistical Association
American String Teachers Association
American Taxation Association
American Theological Library Association
American Translators Association
American Viola d'amore Society

American Viola Society
Archaeological Conservancy, The
Associated Builders and Contractors
Associated General Contractors of America
Associated Neuroscience Departments and Programs
Associated Schools of Construction
Associated Writing Programs
Association for Advances in Health Care Research
Association for Asian Studies
Association for Behavioral and Cognitive Therapy
Association for Business Communication
Association for Comparative Economic Studies
Association for Comparative Studies
Association for Computational Linguistics
Association for Computers and the Humanities
Association for Computers in Education
Association for Computing Machinery
Association for Consumer Research
Association for Counselor Education and Supervision
Association for Couples in Marriage Enrichment
Association for Documentary Editing
Association for Education in Journalism and Mass Communications
Association for Financial Counseling and Planning Education
Association for International Business Education and Research
Association for Library and Information Science Education
Association for Literary and Linguistic Computing
Association for Manufacturing Excellence
Association for Mormon Counselors and Psychotherapists
Association for Mormon Letters
Association for Practical and Professional Ethics
Association for Public Policy Analysis and Management
Association for Schools in Journalism and Mass Communications
Association for Society of Newspaper Editors
Association for Student Judicial Affairs
Association for Supervision, Training, and Development
Association for Systems Management
Association for the Advancement of Computing in Education
Association for Theatre in Higher Education
Association of American Colleges
Association of American Law Schools
Association of American University Presses
Association of Asian Studies
Association of Baccalaureate Social Work Programs
Association of Career and Technical Education
Association of College and Research Libraries
Association of College and University Museums and Galleries
Association of College Unions—International
Association of Continuing Higher Education
Association of Departments of English
Association of Departments of Foreign Languages
Association of General Contractors
Association of Graduate Students in Statistics
Association of Higher Education Facilities Officers
Association of Mathematics Teacher Educators
Association of Musical Theatre Educators
Association of Neuroscience Departments and Programs
Association of Performing Arts Presenters
Association of Professional Genealogists
Association of Psychology Postdoctoral and Internship Centers
Association of Research Libraries
Association of Supervision and Curriculum Development
Association of Teacher Educators
Association of Teachers of Chinese
Association of Teachers of Japanese
Association of Theatre for Children and Young People
Association of the United States Army
Association of University and College Counseling Center Directors
Association of Western Universities
Astronomical Society of the Pacific
Audio Engineering Society
Australia/New Zealand Communication Association
Beta Alpha Psi
Bibliographic Center for Research, Rocky Mountain Region
Biophysical Society
Botanical Society of America
Broadcast Education Association
Broadcast Music Inc.
Canadian Mathematical Society
Cantonese Language Association
Casualty Actuarial Society
Center for Applied Linguistics
Center for Arabic Study Abroad
Center for International Business Education and Research
Center for International Scholarly Exchange
Center for Research Libraries
Central Education Network
Central Opera Service
Changes in Liberal Education
Chartered Financial Analyst Institute
Classical Association of the Middle West and South
Clay Minerals Society
Cliometric Society
Coalition for Networked Information
Coalition of Western Women Historians
Cognitive Development Society
College and University Machine Records Conference
College and University Personnel Association
College Art Association
College Athletic Business Managers Association
College Band Directors National Association
College Entrance Examination Board
College Media Advisors
College Music Society
College Reading Association
College Reading and Learning Association
College Sports Information Directors of America
Committee on Categorizing Statistics Software
Committee on Statistics Software National Academy
Comp Drama Association
Computer-Assisted Language Instruction Consortium
Computing Research Association
Confederation of International Organizers of Folkdance Festivals
Conference on Christianity and Literature
Conference on College Composition and Communication
Congress on Research in Dance
Consortium for the Advancement of Undergraduate Statistics Education
Consortium of Church Libraries and Archives
Consumer Research Association
Co–op America
Correctional Educational Association
Costume Society of America
Costume Society of Great Britain
Council for Chemical Research
Council for European Studies
Council for Programs in Technical and Scientific Communication
Council for the Advancement and Support of Education
Council for Undergraduate Research
Council for Writing Program Administrators
Council of Editors of Learned Journals
Council of Graduate Departments of Psychology
Council of Graduate Schools in the United States
Council on Library and Information Resources
Crop Science Society of America
Dance and the Child International
Dante Society of America
Data Processing Management Association
Decision Sciences Institute
Denver Geophysical Society
Econometric Society
Economic History Association
EDP Auditors Association
Education Law Association
Educational Films Library Association
Educational Society for Resource Management

Educational Theatre Association
Endocrine Society
Environmental Historians Association
Eta Kappa Nu
Eta Sigma Gamma
Eugene O'Neill Society of America
European Accounting Association
European Association of Exploration Geophysicists
European Physical Society
European Trade Association
Executive MBA Council
Families and Work Institute
Family and Consumer Sciences Education Association
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Broadway, Marsha D. (1985) BS, U. of Northern Alabama, 1972; MS, Alabama A&M U., 1978; MLS, Brigham Young U., 1981; PhD, Florida State U., 1985.

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